

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE

NUANCE COMMUNICATIONS, INC., a )  
Delaware corporation, and PHONETIC )  
SYSTEMS LTD., an Israeli corporation, )  
 )  
Plaintiffs, ) Civil Action No. 06-105-SLR  
 )  
vs. )  
 )  
TELLME NETWORKS, INC., a Delaware )  
corporation, )  
 )  
Defendant. )

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**DECLARATION OF JO-ANNE SINCLAIR, ESQ. IN SUPPORT OF NUANCE  
COMMUNICATIONS, INC. AND PHONETIC SYSTEMS LTD.'S OPPOSITION TO  
TELLME NETWORKS, INC.'S MOTION TO STAY PENDING ARBITRATION**

Frederick L. Cottrell (# 2555)  
cottrell@rlf.com  
Gregory E. Stuhlman (#4765)  
stuhlman@rlf.com  
RICHARDS, LAYTON & FINGER, P.A.  
One Rodney Square  
P.O. Box 551  
Wilmington, Delaware 19899  
(302) 651-7700

Attorneys for Plaintiffs Nuance Communications,  
Inc. and Phonetic Systems Ltd.

OF COUNSEL:

Mark A. Samuels (S.B. #107026)  
Mark C. Scarsi (S.B. #183926)  
Jeffrey A. Fehervari (S.B. #181124)  
O'MELVENY & MYERS LLP  
400 South Hope Street  
Los Angeles, California 90071-2899  
Telephone: (213) 430-6000  
Facsimile: (213) 430-6407

**DECLARATION OF JO-ANNE SINCLAIR, ESQ.**

I, Jo-Anne Sinclair, do hereby declare as follows:

1. I am the Vice President and General Counsel of Nuance Communications, Inc. (“Nuance”), one of the plaintiffs in the above-captioned action. I have personal knowledge of the facts set forth in this declaration. If called to testify, I could and would competently testify thereto.

2. I joined Caere Corporation as its General Counsel in April 1998. In March 2000, Caere Corporation was acquired by Nuance (then known as ScanSoft, Inc.). During 2001, in addition to serving as Nuance’s General Counsel, I was also appointed the position of Vice President, and I still serve in that combined capacity. As V.P. and General Counsel, my duties include overall supervision of all of the company’s legal matters, including general corporate matters, corporate transactions and litigation.

3. Nuance was incorporated in 1992 as Visioneer, Inc. and changed its name to ScanSoft, Inc. in 1999. In May 2005, while still named ScanSoft, Inc., Nuance entered into an agreement to acquire Nuance Communications, USA, Inc. (“NCUSA”) (which was then itself known as Nuance Communications, Inc.) as a wholly-owned subsidiary of Nuance. Nuance’s acquisition of NCUSA closed in September 2005. ScanSoft, Inc. then changed its name to Nuance Communications, Inc. in October 2005 to reflect the company’s focus on both speech and imaging technology.

4. Nuance is the owner of U.S. Patent No. 5,033,088 (‘088 Patent), a true and accurate copy of which is attached hereto as Exhibit A. Nuance acquired the ‘088 Patent from Philips Electronics North America (“Philips”) in early 2003 as part of a larger transaction. The ‘088 Patent issued on July 16, 1991, and it will expire on July 16, 2008.

5. Phonetic Systems, Ltd., ("Phonetic"), the second plaintiff in this action, is an Israeli corporation headquartered in Israel. Phonetic is a developer of speech-related technologies, and is the owner of U.S. Patent No. 6,256,630 ('630 Patent), a true and accurate copy of which is attached hereto as Exhibit B. Phonetic's '630 Patent issued on July 3, 2001, and will expire on October 3, 2014.

6. In February 2005, Nuance (then called ScanSoft) acquired Phonetic as a wholly-owned subsidiary. Phonetic's operations in Israel remain actively engaged in the research and development of advanced speech-related technologies.

7. Neither of the two plaintiffs in this case, Nuance or Phonetic, has any contractual relationship with defendant Tellme Networks, Inc. ("Tellme"). Further, neither of Nuance or Phonetic has ever entered into any intellectual property license with Tellme.

8. In 2005, Nuance (then ScanSoft) entered into an agreement to merge with NCUSA (then known as Nuance Communications, Inc.) by acquiring NCUSA as a wholly-owned subsidiary of Nuance. The agreement between Nuance and NCUSA ("Merger Agreement") is attached hereto as Exhibit C.

9. In order to effect that acquisition, NCUSA merged with and into Nova Acquisition Corp., a wholly-owned subsidiary of Nuance (then ScanSoft). NCUSA thereby itself become a wholly-owned subsidiary of Nuance. Although Nuance (then ScanSoft) acquired NCUSA as a subsidiary, it never assumed the rights or obligations of NCUSA. For example, the Merger Agreement provides at page A-20 that:

Section 2.8. *Intellectual Property.* ... (g) The Merger will not, as a result of any contracts, licenses or other agreements entered into by [NCUSA], result in: (i) [ScanSoft] or its Subsidiaries (other than the Subs, but only to the extent existing prior to the Merger), being bound by any material non-compete, exclusivity obligation or other restriction on the operation of its business, or (ii) [ScanSoft] or its Subsidiaries (other than the Subs, but

only to the extent existing prior to the Merger) granting to any third party  
any rights or licenses to any material Intellectual Property of [ScanSoft] or  
any affiliate of [ScanSoft] (including without limitation a covenant not to  
sue).

10. NCUSA did not grant Tellme a license to either of the patents-in-suit, because  
NCUSA does not have, nor did it ever have, the right to grant licenses to either of the two  
patents-in-suit, Nuance's '088 Patent or Phonetic's '630 Patent.

I declare under penalty of perjury of the laws of the United States of America that the  
foregoing is true and correct.

Executed on April 27, 2006 at Menlo Park, California.

  
\_\_\_\_\_  
Jo-Anne Sinclair

UNITED STATES DISTRICT COURT  
DISTRICT OF DELAWARE

**CERTIFICATE OF SERVICE**

I hereby certify that on April 28, 2006, I electronically filed the foregoing with the Clerk of Court using CM/ECF which will send notification of such filing(s) to the following and which has also been served as noted:

**VIA HAND DELIVERY**

Jack B. Blumenfeld  
Rodger D. Smith, II  
Morris, Nichols, Arsht & Tunnell LLP  
1201 N. Market Street  
Wilmington, DE 19899-1347

I hereby certify that on April 28, 2006, the foregoing document was sent to the following non-registered participants in the manner indicated:

**VIA U.S. MAIL**

Morgan Chu, Esquire  
Jonathan S. Kagan  
Iian Jablon  
Irell & Manella LLP  
1800 Avenue of the Stars  
Los Angeles, CA 90067



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Gregory E. Stuhlman (#4765)  
stuhlman@rlf.com

# EXHIBIT A

**United States Patent** [19]  
**Shipman**

[11] Patent Number: **5,033,088**  
[45] Date of Patent: **Jul. 16, 1991**

[54] **METHOD AND APPARATUS FOR EFFECTIVELY RECEIVING VOICE INPUT TO A VOICE RECOGNITION SYSTEM**  
[75] Inventor: **David W. Shipman, Cambridge, Mass.**  
[73] Assignee: **Voice Processing Corp., Washington, D.C.**  
[21] Appl. No.: **453,108**  
[22] Filed: **Dec. 21, 1989**

**Related U.S. Application Data**

[63] Continuation of Ser. No. 202,506, Jun. 6, 1988, abandoned.  
[51] Int. Cl. 5 ..... **G10L 5/00; H04M 3/50**  
[52] U.S. Cl. ..... **381/43; 379/88**  
[58] Field of Search ..... **364/513.5; 381/41-43; 379/88, 89**

[56] **References Cited**

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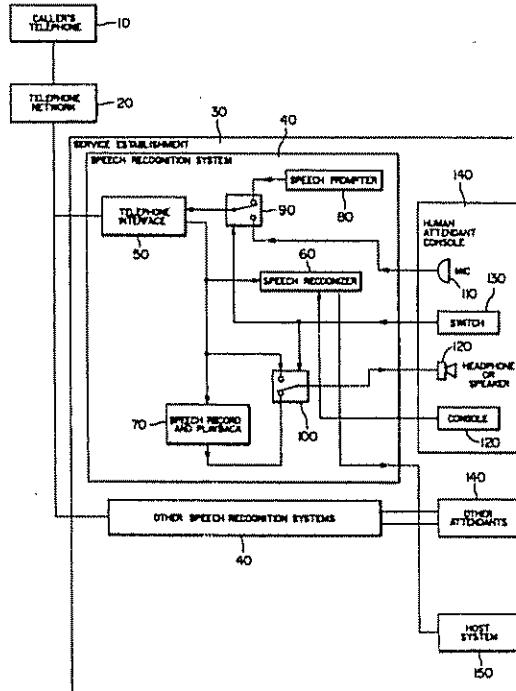
Jones, "Building Block Circuits Simplify Integration on Voice-Input Systems", Computer Technology Review; Los Angeles, CA, U.S.A., Jan. 3, 1983; No. 1, pp. 63-67.

*Primary Examiner—Gary V. Harkcom  
Assistant Examiner—David D. Knepper  
Attorney, Agent, or Firm—Fleit, Jacobson, Cohn, Price, Holman & Stern*

[57] **ABSTRACT**

Processing voice information is performed to complete a task with minimal human intervention. Information received by the automated system from the caller is fed into a speech recognition system, which attempts to recognize the information. The caller's input also is recorded by a recording device. The task is completed if the information is reliably recognized. If the information is not reliably recognized, the speech recognition system optionally requests that the information be repeated. The repeated information is received by the system, and the speech recognition system again attempts to identify the information. The task is completed if the repeated information is reliably recognized. If the repeated information is again not reliably recognized by the speech recognition system, and usually without the caller knowing, the spoken information is transmitted to a human attendant who attempts to identify the information by a playback of the recorded information and possibly a visual display of the speech recognition system's proposed solution to what the caller stated. If the caller's information is recognized, the human attendant then inputs the information so that the system can complete the task. If the human attendant is also unable to recognize the information, the attendant directly requests further information from the caller until the desired information is received.

5 Claims, 2 Drawing Sheets



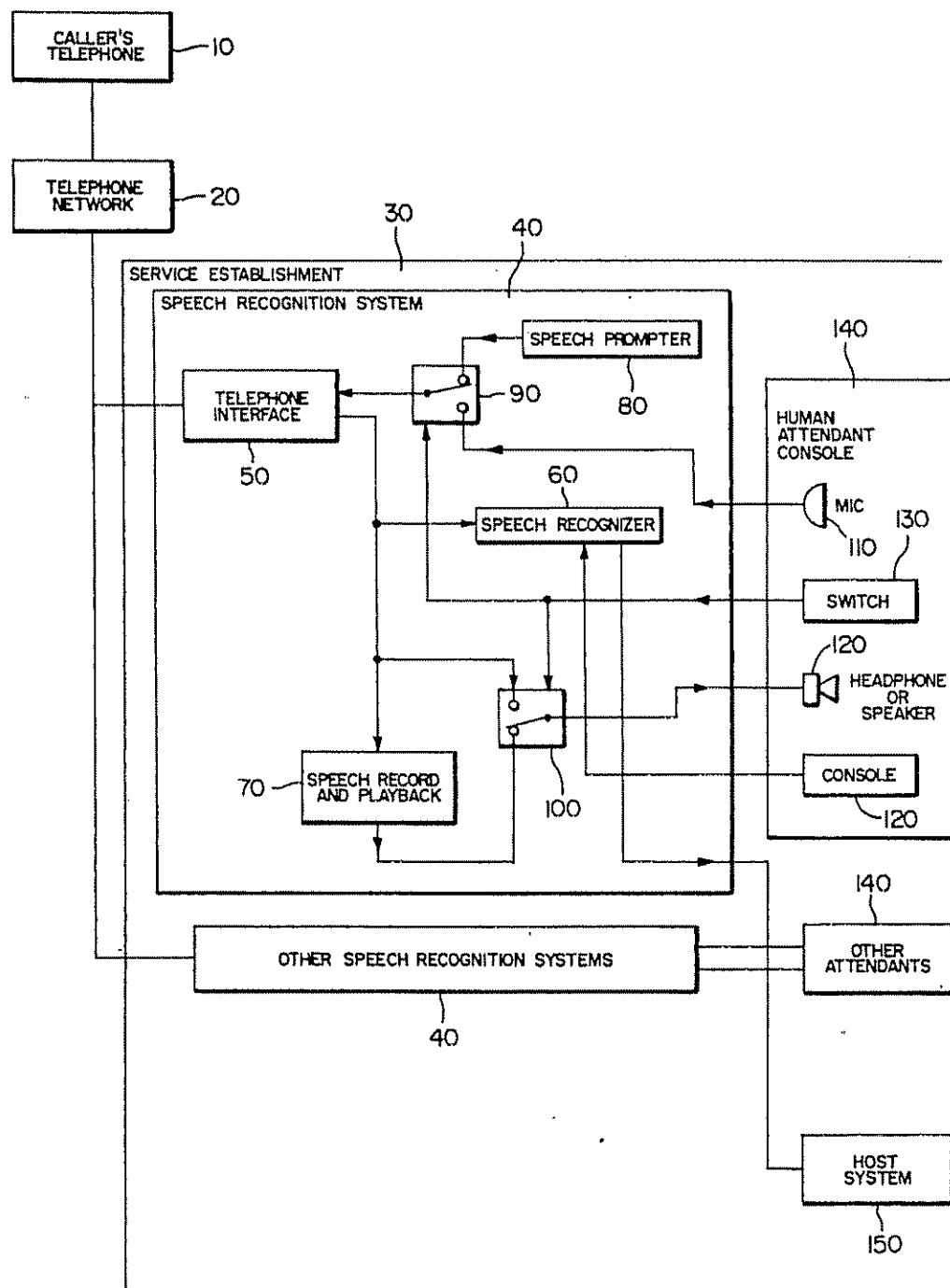
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FIG. 1



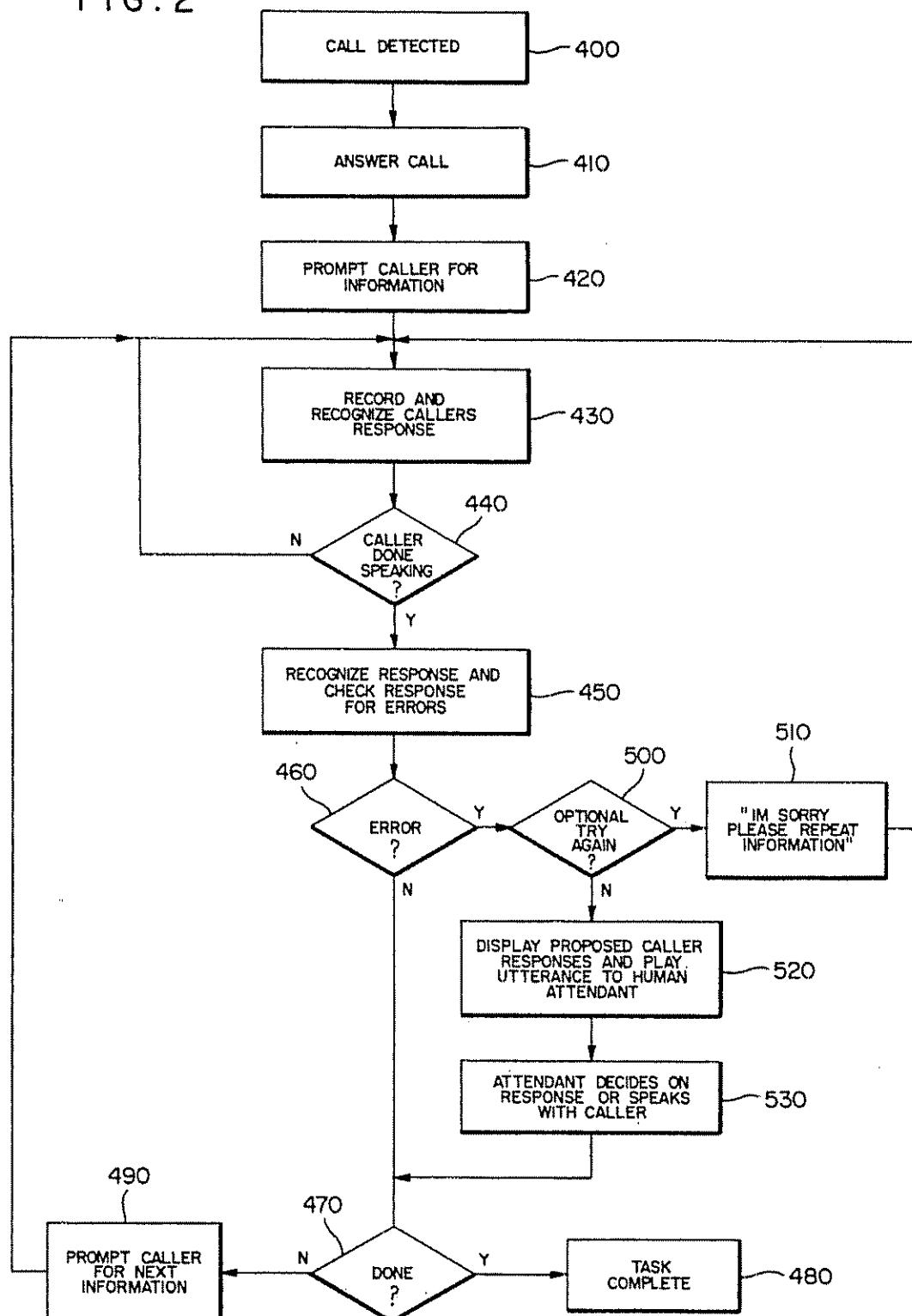
U.S. Patent

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FIG. 2



**METHOD AND APPARATUS FOR EFFECTIVELY RECEIVING VOICE INPUT TO A VOICE RECOGNITION SYSTEM**

This application is a continuation of application Ser. No. 07/202,506, filed Jun. 6, 1988, now abandoned.

**BACKGROUND OF THE INVENTION**

This invention relates generally to systems in which a speech recognition device is utilized to receive spoken information from an incoming caller, process the information, and complete a predetermined task.

The use of automated speech recognition devices to process spoken information received over telephone lines is well known and is becoming increasingly popular. It should be clear that if such an automated speech recognition device is utilized, it is very important that the speaker communicates accurate information to the system, and does so with maximum machine assistance to the speaker. And, if the speech recognition device is unable to satisfactorily identify information presented by the caller, it is important that the caller be prompted as few times as possible to repeat the questionable information. At the same time, it is essential that accurate information be received and processed by the device.

Accordingly, it is an object of this invention to provide an automatic speech recognition system for receiving and processing voice-communicated information from a human in an efficient and pleasing manner.

Other objects and advantages of the invention will become apparent from the following detailed description when considered in conjunction with the accompanying drawings.

**SUMMARY OF THE INVENTION**

According to the invention, there is provided a method and apparatus for processing spoken information so that an automated system is able to complete a task with minimal contact with a caller. This method, and its associated apparatus, comprises receiving verbal information from the caller, attempting to recognize the information and completing the task if the information is recognized. All spoken information from the caller is recorded by the recognition system.

If the spoken information is not recognized by the automated speech recognition system, then the system automatically and without the knowledge of the caller switches to a mode that includes the intervention of a human attendant. Even then, the entire transaction generally proceeds without the caller ever knowing that a human has intervened.

The human attendant could receive two types of information from the automated system. The first is a screen display showing the recognition system's possible "solutions" for the caller's spoken information. The second is the recorded utterance that is played for the attendant over an audio playback device.

The human attendant could therefore view the display of the most likely identity (or identities) of the repeated information and could also listen to the verbal input to determine whether or not the input is recognizable. If the recorded information is recognizable, the attendant inputs the recognized information (via a keyboard or other input device) into the system so that the system may complete the given task. The screen display is designed to facilitate the input of information by the attendant (as by permitting the input of a full word by

means of single character). If, on the other hand, the recorded information cannot be recognized by the human attendant, the attendant may cut in and communicate with the caller directly in order to gain an understanding of the previously unrecognized information; this would be the only circumstance under which the caller will know that an attendant has intervened. The attendant then inputs the proper information into the system, which then completes the given task.

**BRIEF DESCRIPTION OF THE DRAWINGS**

FIG. 1 is a block diagram of the voice recognition system of the present invention; and

FIG. 2 is flow diagram of the voice recognition system depicted in FIG. 1.

**DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT**

FIG. 1 schematically illustrates at 5 the elements which comprise the automated speech recognition apparatus of the invention. FIG. 1 shows a caller's telephone 10 connected by a telephone line through the telephone network 20 to a speech recognition system 40 at a given service establishment 30. Within the automated speech recognition system is a recorder or other audio recording device 70 such as a disc drive or electronic memory. Recorder 70 can provide recorded voice information to a human attendant at console 140 via a headphone or speaker 120. Depending on the ability of the automated speech recognition system to identify information provided by the caller, either the speech recognition system 40 or the human attendant at console 140 will determine what information was spoken by the caller.

The speech recognition apparatus illustrated in FIG. 1 operates generally as follows. The caller is prompted for information by a known speech prompter 80, and the caller's spoken words are processed by a known speech recognizer 60. At the same time, the caller's response is recorded by recording and playback device 70. If the speech recognizer 60 recognizes the caller's response, it will provide a signal via known means and in a known manner to the host system 150 to complete the task.

Several methods can be used by the recognition system to determine if the information spoken by the caller was correctly recognized. They include the following, as examples:

- (1) The recognition device calculates and assigns a probability of correctness to its estimate of information spoken by the caller.
- (2) If the utterance is a digit string, a check-sum of digits is computed.
- (3) If the recognition device proposes a word that does not conform to the expected caller responses, an error assumption is made.

In the event the speech recognition system 40 fails to recognize the caller's response, an error is detected, the task is not completed, and the caller's recorded response and the recognizer's proposed response or responses are presented to the human attendant at console 140 via headphone or speaker 120 and operator's console 160. Based upon the information presented, the human attendant at console 140 can either complete the task, if the request is understood, or alternatively, switching means 90 and 100 can be utilized so that the human attendant can speak with and listen to the caller via microphone 110 and headphone or speaker 120, if the recorded re-

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sponse is not understood, in order to ascertain precisely what was the caller's response.

Referring now to FIG. 2, the process by which the automated system described above deals with an incoming call is illustrated step by step. When an incoming telephone call is detected by the automated system, the call is automatically answered by telephone interface 50 at step 410. The caller is prompted at step 420 by the automated system to provide information which the system 40 will attempt to recognize. The caller then 10 speaks, thereby providing the system with verbal information. The system receives and records the verbal information at step 430 and waits for the caller to finish speaking at step 440. The speech recognizer 60 recognizes the speech and checks for errors at step 450. If the 15 speech recognizer 60 determines it has correctly recognized the caller's verbal request, it then is able to signal the host system 150 to complete the task the caller desires. In the event that the speech recognizer 60 determines it has not correctly recognized the verbal request 20 made by the caller, the caller is optionally prompted once again at step 500 to repeat the information originally provided to the system. The repeated information is again received and recorded at step 430 by the system.

If, at step 450, the speech recognizer 60 determines that it correctly recognizes the verbal request based upon the information repeated by the caller, the speech recognition system 40 will complete the task requested. In the event that the speech recognizer 60 determines it 30 has again failed to recognize the verbal request, there is now no need to ask for an additional repeated request from the caller. Instead the information which was previously recorded by speech record and playback device 70 is repeated at step 520 over headphone or 35 speaker 120 so that the human attendant at console 140 is able to hear the repeated and recorded information. The recognizer 60 also displays on operator's console 160 proposed solutions to what the caller said.

If, at step 530, the human attendant 140 is able to 40 determine from hearing the recorded, repeated information what was said by the caller, the human attendant enters or corrects the information at the console 160. The attendant, for example, may use a keyboard to input information into console 160. The information is 45 transmitted from console 160 to speech recognizer 60, which then completes the task. Alternatively, in the event that the human attendant is unable at step 530 to recognize the repeated information, he or she may cut in on the line with the caller and assist the caller by 50 asking for further information.

Most caller phone calls will be serviced by the speech recognition system 40 and host system 150 without the need of a human attendant. This allows one attendant to service many speech recognizers or, alternatively, the 55 attendant could be occupied with other activities when not servicing speech recognizer requests for attendant intervention.

Attendants can be connected to any recognition system via known network or switching means allowing 60 any recognizer with a need for attendant intervention to be connected to any free attendant for resolution of a recognition task.

The foregoing is considered as illustrative of the invention. Since numerous modifications and changes 65 may occur to those skilled in the art, it is to be understood that the invention is not to be limited to the exact construction and operation shown and described.

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What is claimed:

1. A method of processing verbal information received by an automated voice recognition system from a customer and completing a task on the basis of the information received, the method comprising the steps of:

prompting a verbal response from a human customer as an input source; receiving information in the verbal response from the input source generated by the human customer, said information corresponding to a desired task to be completed; recording the verbal response; attempting to recognize said information through automation; determining by automation if the information was reliably recognized; transmitting the recorded verbal response of the human customer to a human attendant other than the human customer if it is determined that said information was not reliably recognized; inputting correct information by the human attendant so as to enable the completion of the desired task through automation; and completing the desired task with the automatically recognized information if it is determined that said information was reliably recognized or with the human attendant inputted information if it is determined that said information was not reliably recognized.

2. A method as defined by claim 1 and further comprising the step of:

prompting a repeated verbal response from the human input source.

3. An apparatus for processing verbal information from a customer to complete a task comprising:

means for prompting a verbal response from a human customer as an input source; a speech recognizer including means for recognizing information in the verbal response and means for determining if the information was reliably recognized; recording means for recording the verbal response; means for enabling information to be manually input into the speech recognition system; and means for completing the task automatically if the information was reliably recognized by said speech recognizer, said means for completing the task completes the task with the recognized information, and including means for manually completing the task if the information was not reliably recognized by said speech recognizer, said means for completing the task completes the task with the information inputted by a human attendant other than the human customer after reviewing the recorded verbal response.

4. A method of processing verbal information received by an automated voice recognition system to complete a task, said method comprising the steps of:

prompting a verbal response from a human customer source, said verbal response including information for carrying out a specific task; receiving said information in said verbal response from said human customer source; recording said verbal response; attempting to recognize said information via said voice recognition system;

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determining if said information is either recognizable or unrecognizable by said voice recognition system; and  
carrying out said specific task directly if said information is recognizable on the one hand, or on the other hand, transmitting said recorded verbal response to a human attendant other than the human customer if said information is unrecognizable, to allow said human attendant to provide the information corresponding to said specific task to enable completion of said specific task.  
5. An apparatus for processing verbal information for completing a task comprising:  
means for prompting a verbal response from a human customer as an input source; 15

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speech recognizing means for attempting to recognize information in said verbal response and including means for determining if said information is recognizable or unrecognizable;  
recording means for recording the verbal response;  
means for completing said task;  
means for enabling said information to be manually input by a human attendant other than the human customer to trigger said means for completing the task to complete the task if said information is unrecognizable, on the one hand, or on the other hand, for triggering directly said means for completing the task to complete the task if said information is recognizable.  
\* \* \* \* \*

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# EXHIBIT B



US006256630B1

(12) **United States Patent**  
Gilai et al.

(10) Patent No.: **US 6,256,630 B1**  
(45) Date of Patent: **Jul. 3, 2001**

(54) **WORD-CONTAINING DATABASE  
ACCESSION SYSTEM FOR RESPONDING  
TO AMBIGUOUS QUERIES, INCLUDING A  
DICTIONARY OF DATABASE WORDS, A  
DICTIONARY SEARCHER AND A  
DATABASE SEARCHER**

(75) Inventors: Atzmon Gilai, Holon; Hezi Resnekov, Ra'anana, both of (IL)

(73) Assignee: Phonetic Systems Ltd., Holon (IL)

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days

(21) Appl. No.: 09/335,456

(22) Filed: Jun. 17, 1999

**Related U.S. Application Data**

(63) Continuation of application No. 08/749,374, filed on Nov 20, 1996, now Pat. No. 6,018,736, which is a continuation of application No. 08/317,040, filed on Oct 3, 1994, now abandoned

(51) Int. Cl. 7 G06F 17/21

(52) U.S. Cl. 707/6; 707/532; 707/533; 707/5; 704/239; 704/240; 704/251

(58) Field of Search 707/5, 533, 6, 707/532; 704/255, 239, 240, 251

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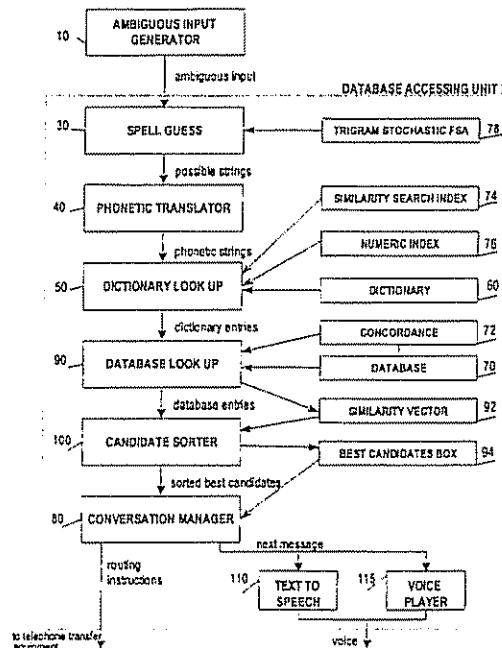
*Primary Examiner*—Jean R. Homere  
(74) *Attorney, Agent, or Firm*—David L. Davis

(57) **ABSTRACT**

A database accessing system for processing a request to access a database including a multiplicity of entries, each entry including at least one word, the request including a sequence of representations of possibly erroneous user inputs, the system including a similar word finder operative, for at least one interpretation of each representation, to find at least one database word which is at least similar to that interpretation, and a database entry evaluator operative, for each database word found by the similar word finder, to assign similarity values for relevant entries in the database, said values representing the degree of similarity between each database entry and the request

**7 Claims, 12 Drawing Sheets**

Microfiche Appendix Included  
(8 Microfiche, 782 Pages)



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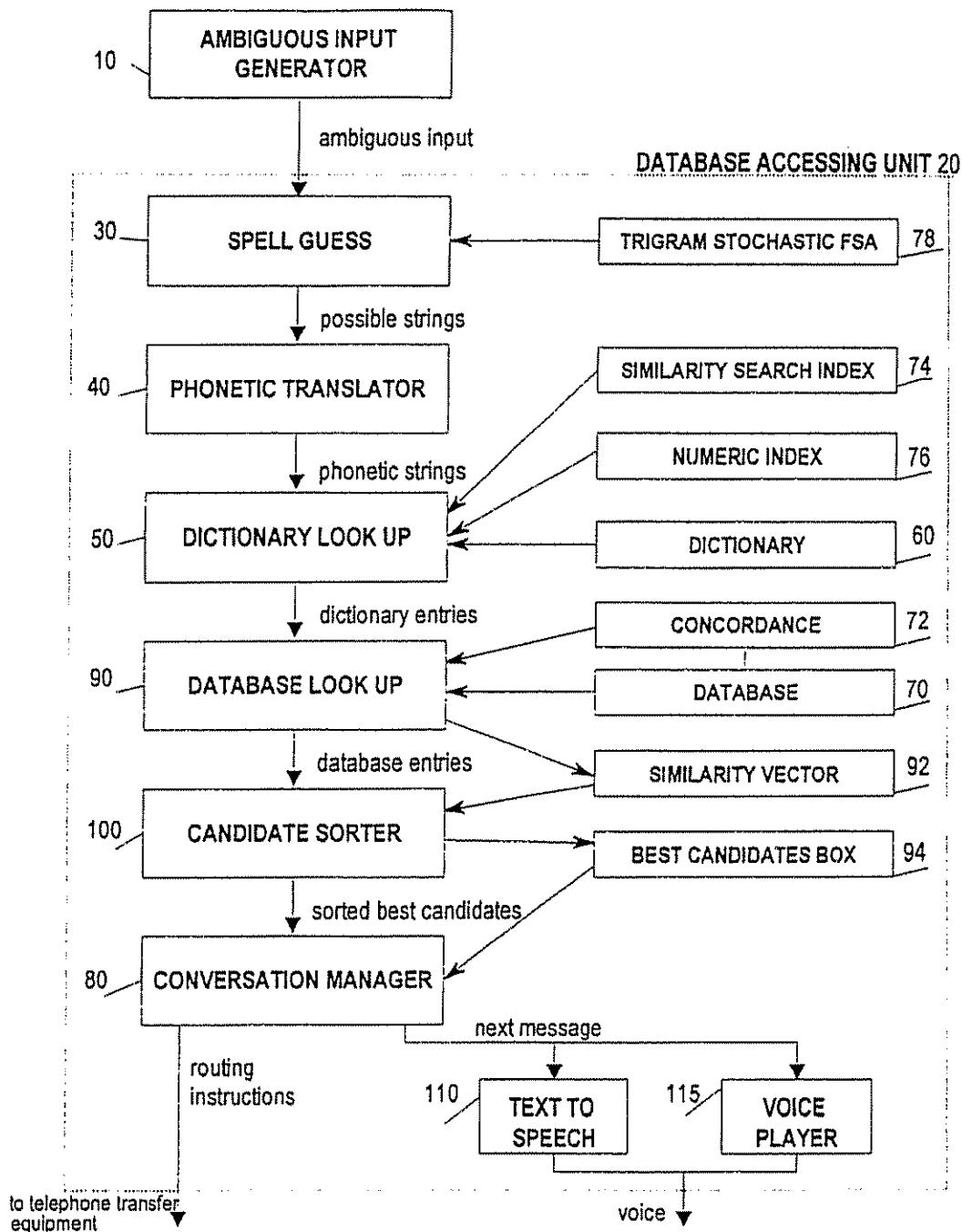


Fig. 1

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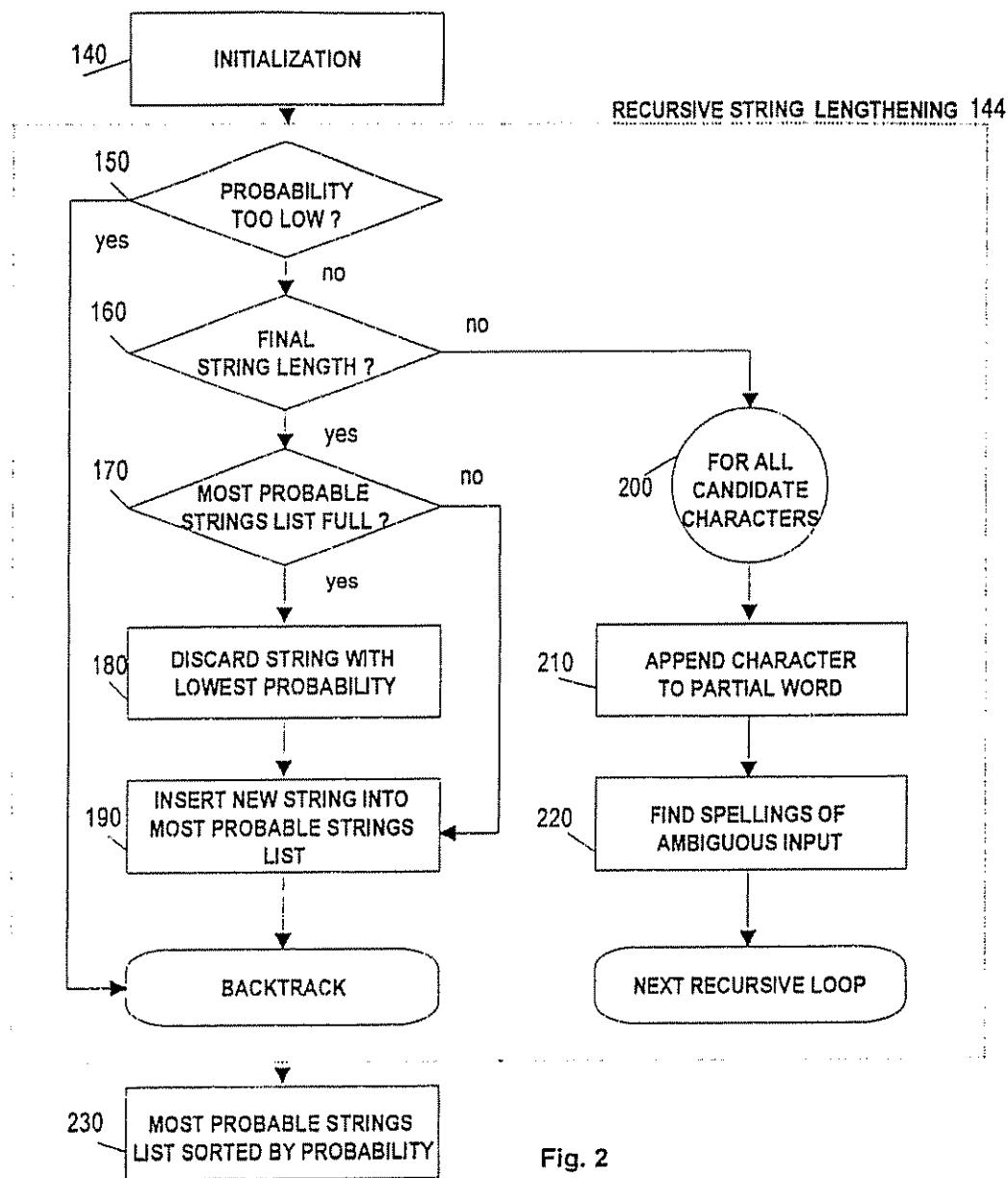


Fig. 2

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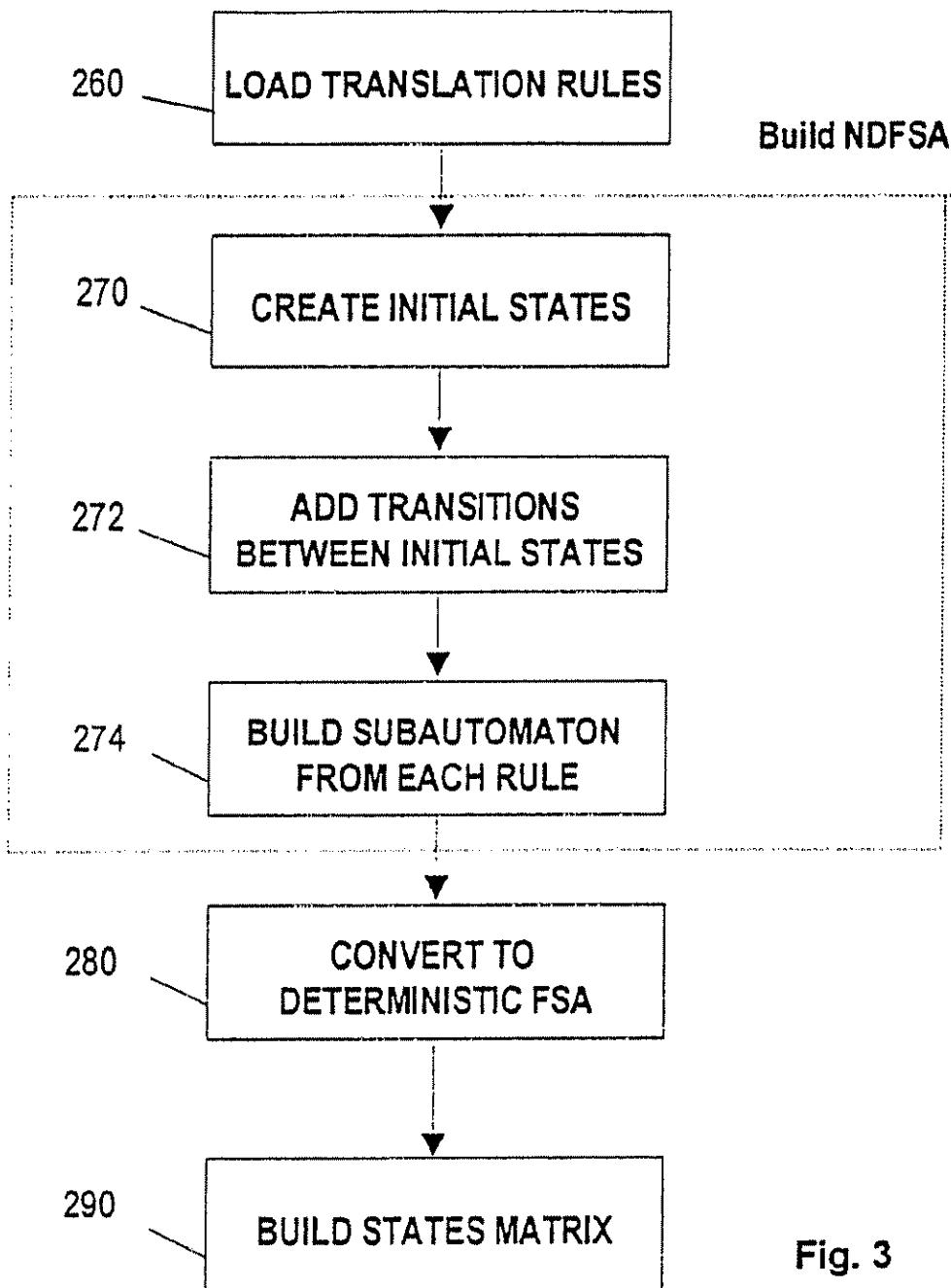


Fig. 3

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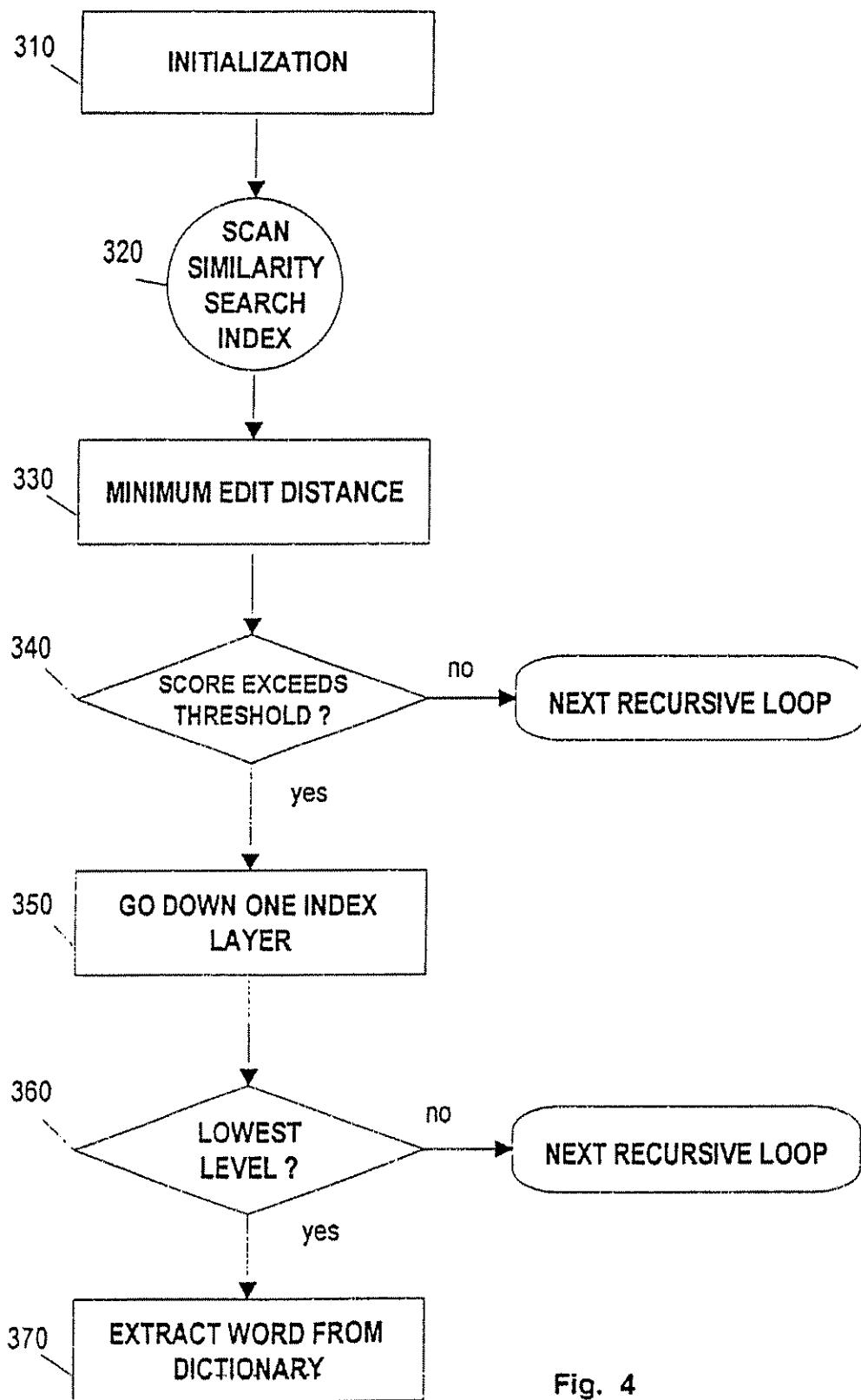


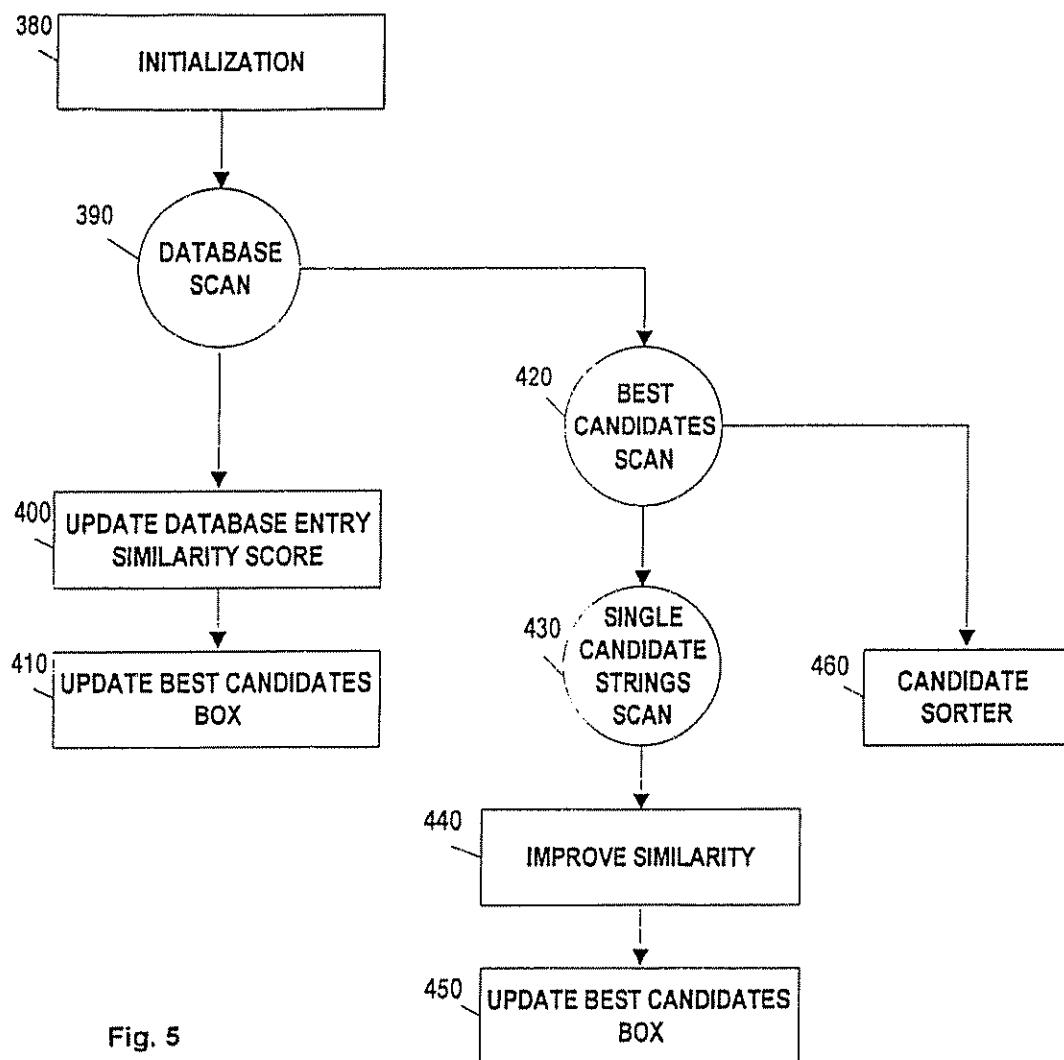
Fig. 4

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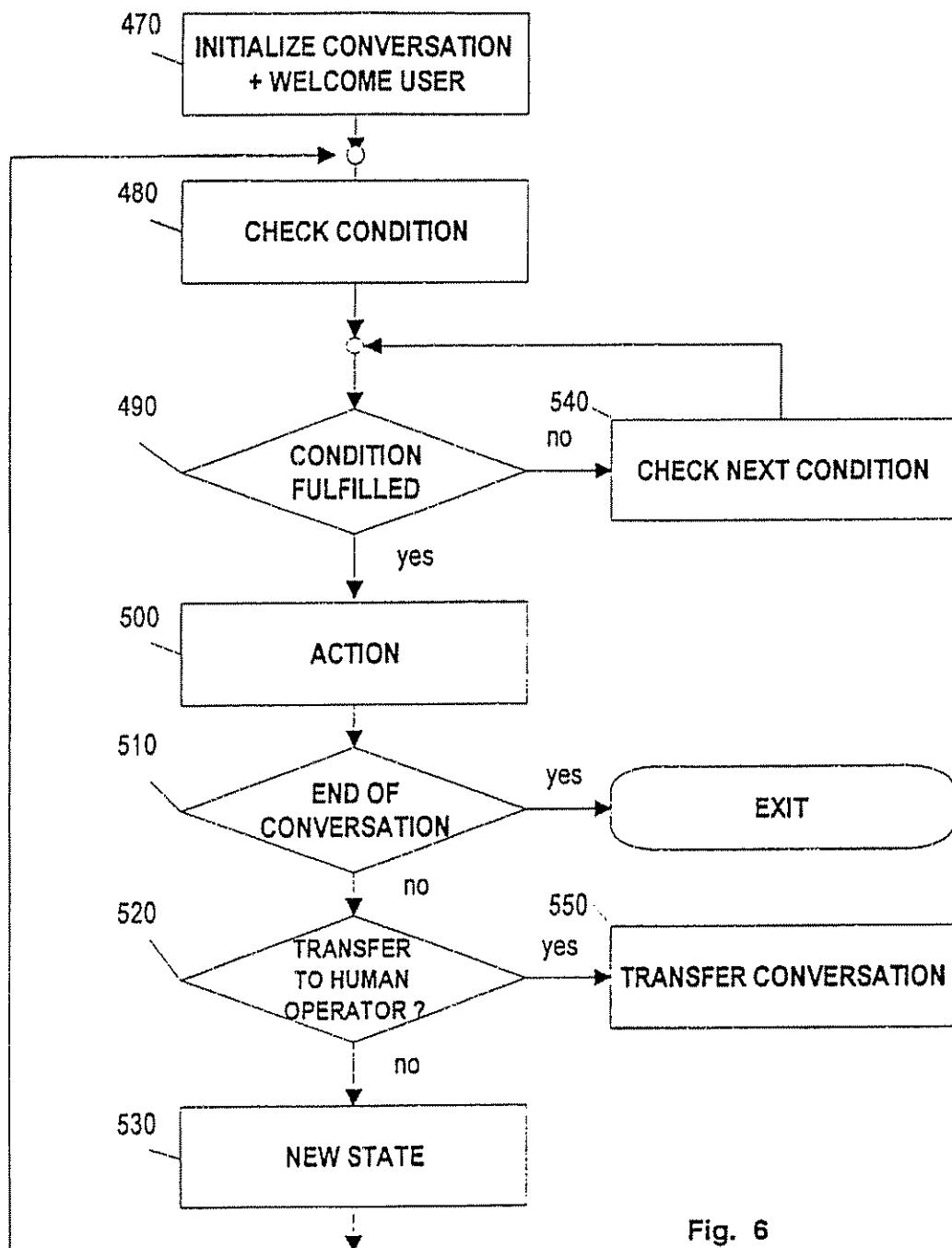


Fig. 6

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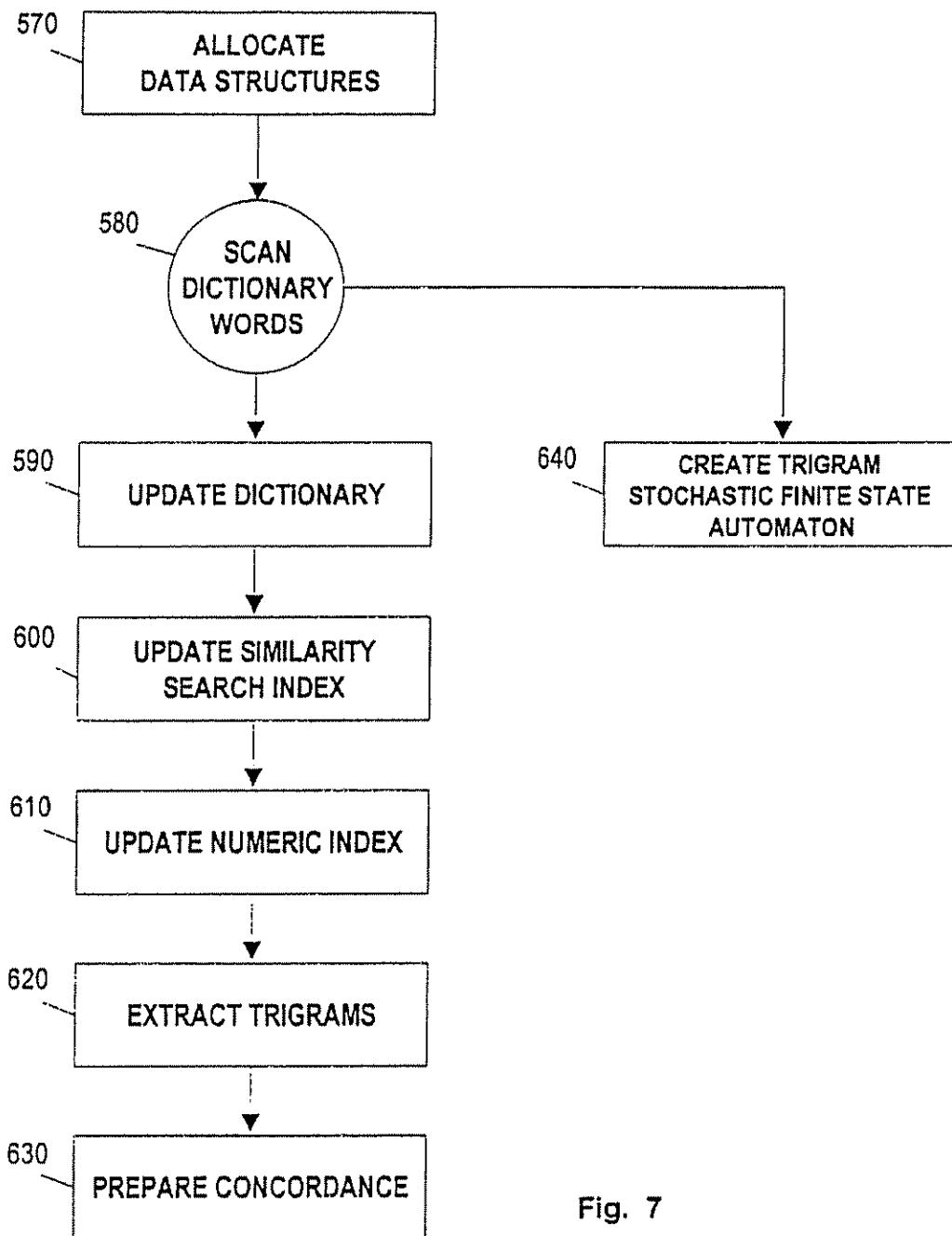


Fig. 7

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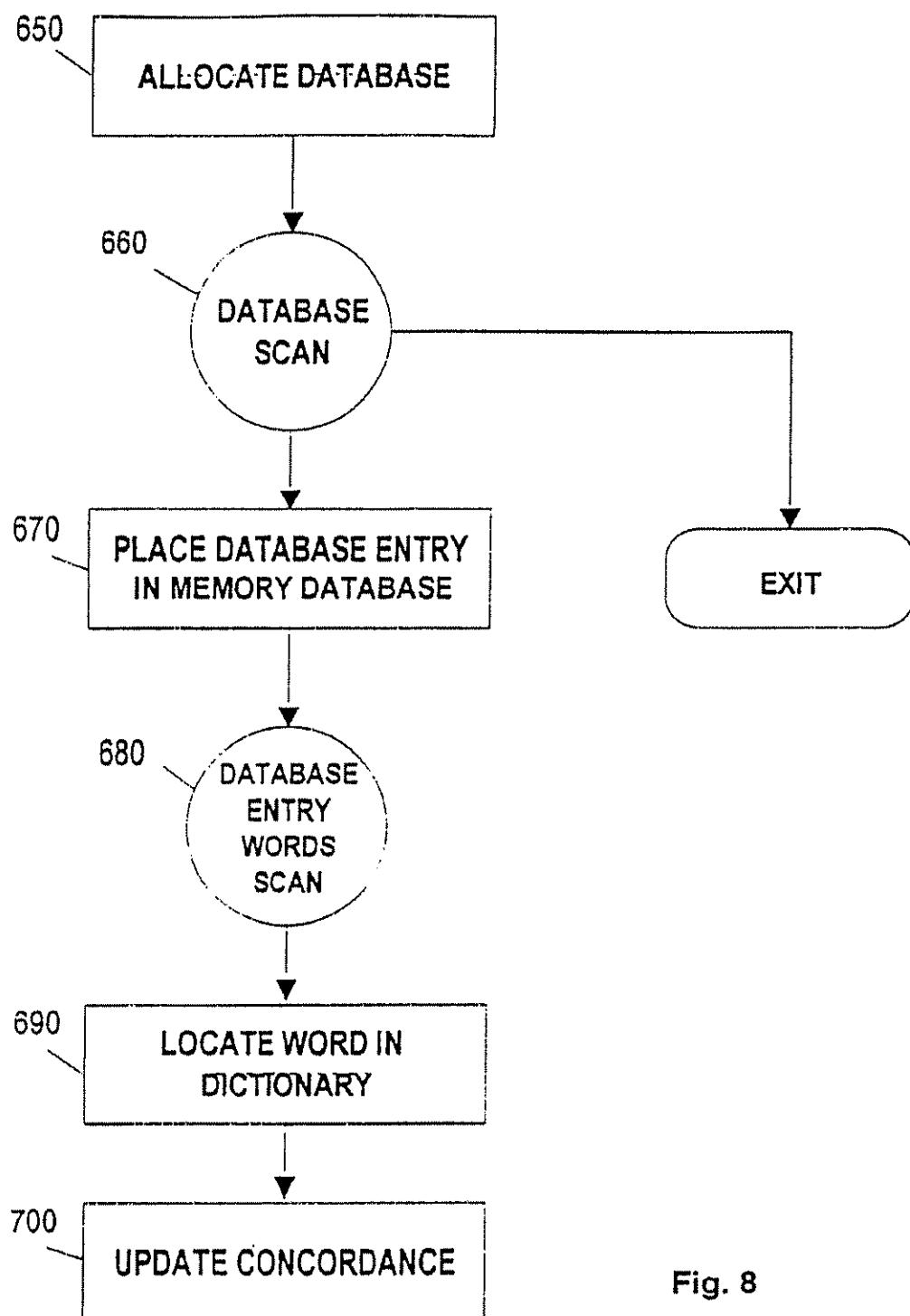


Fig. 8

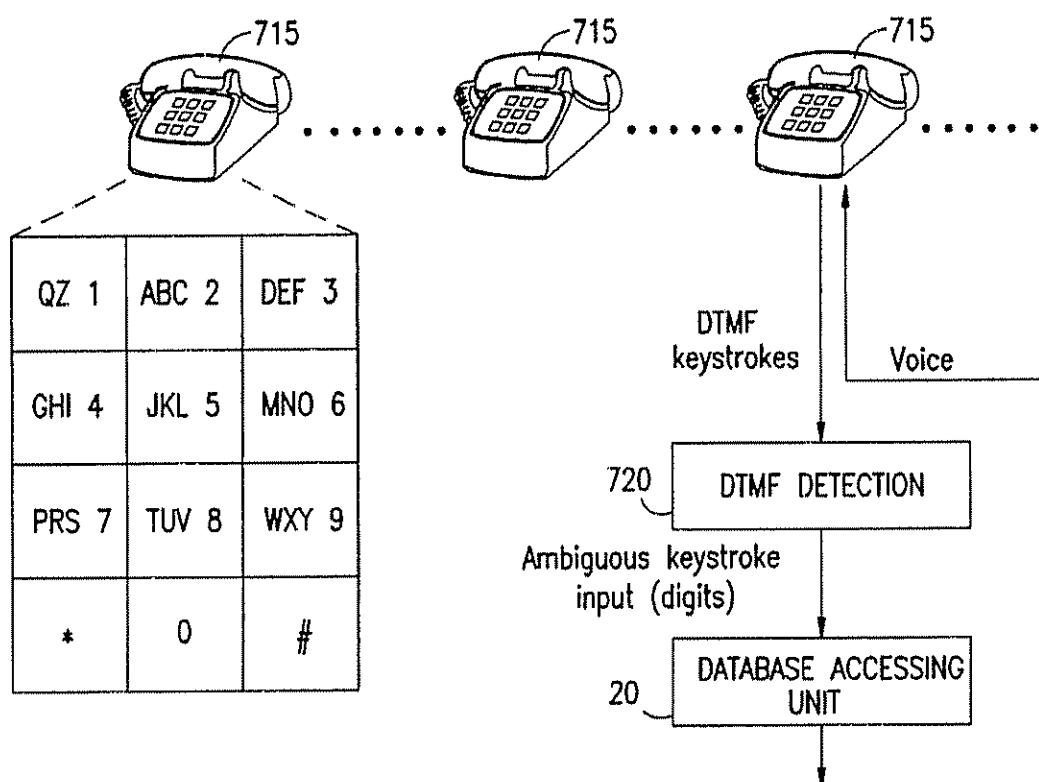
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FIG. 9



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FIG. 10

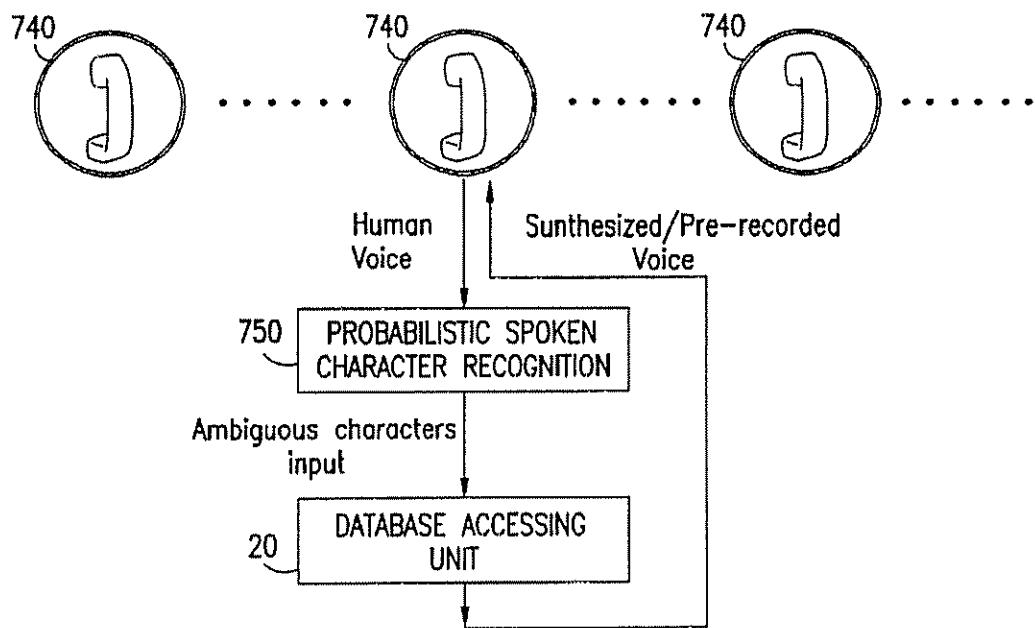
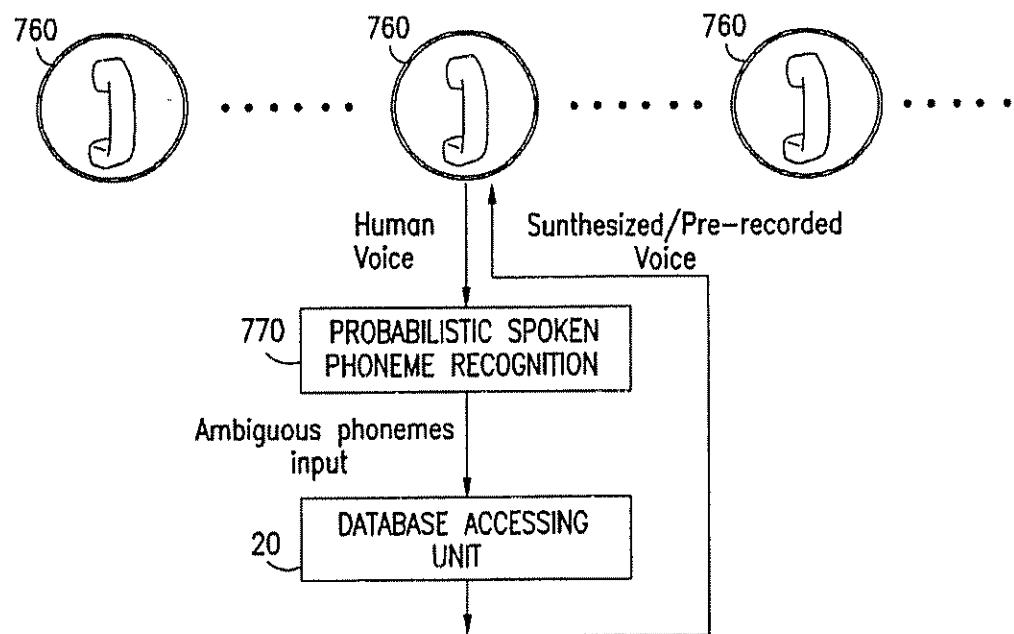


FIG. 11

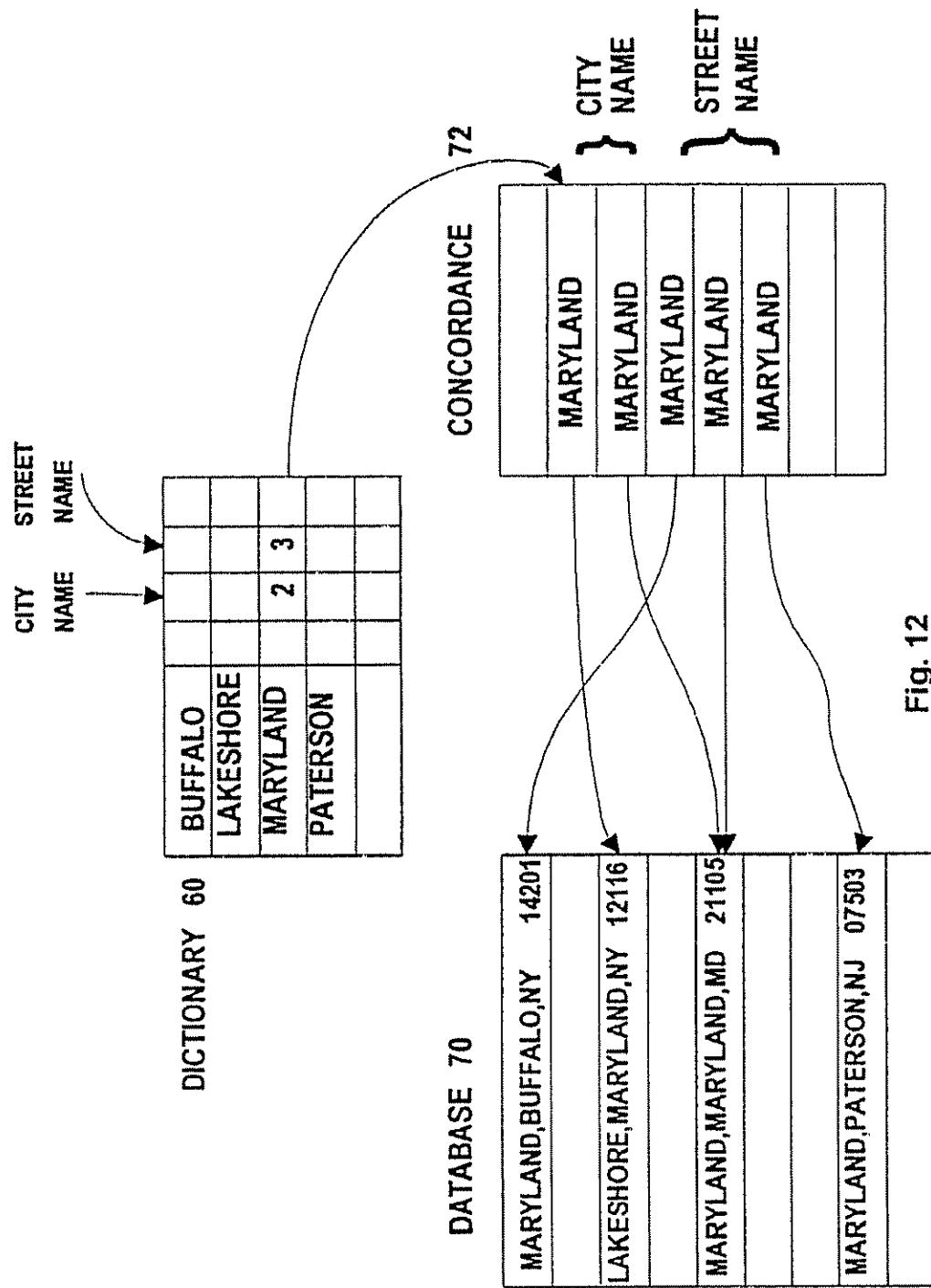


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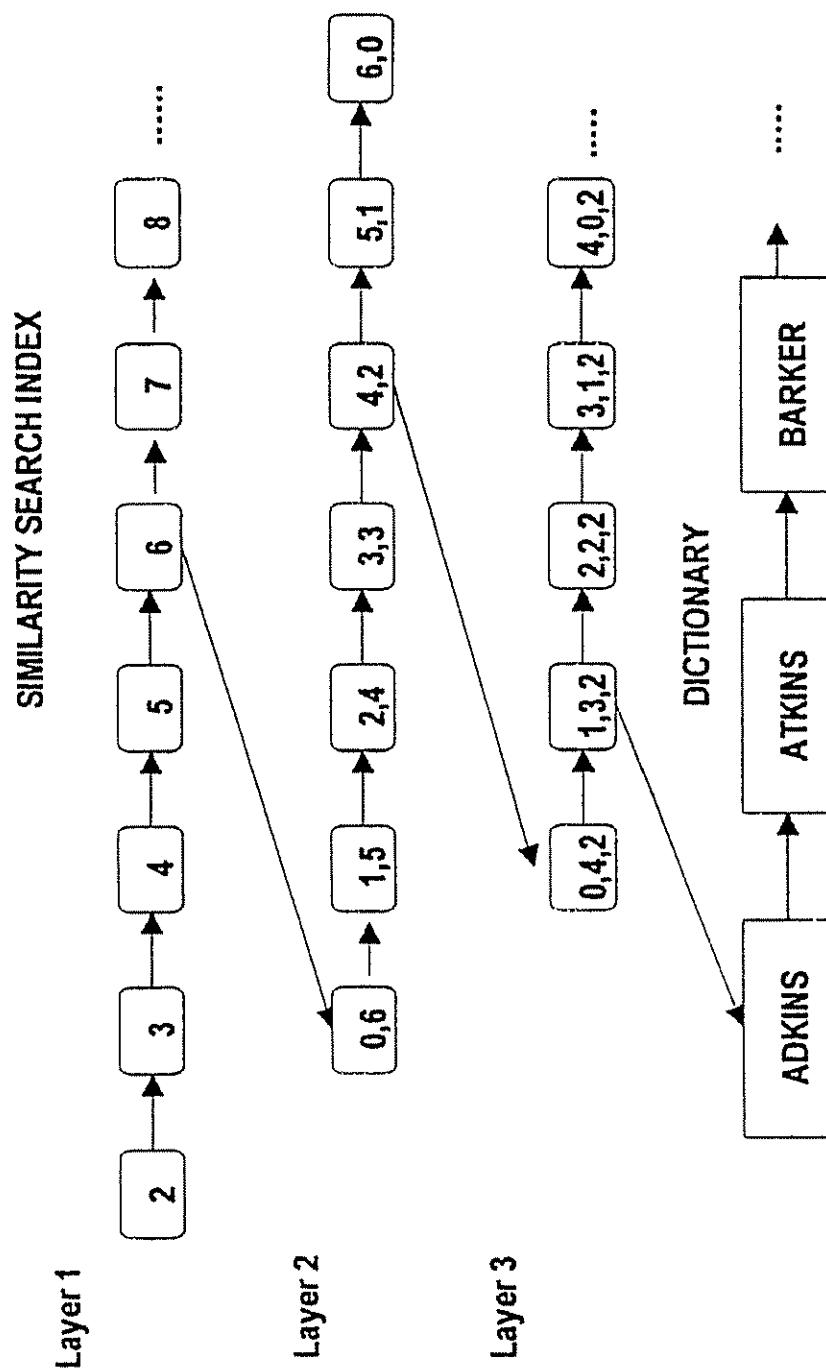


Fig. 13

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WORD-CONTAINING DATABASE  
ACCESSION SYSTEM FOR RESPONDING  
TO AMBIGUOUS QUERIES, INCLUDING A  
DICTIONARY OF DATABASE WORDS, A  
DICTIONARY SEARCHER AND A  
DATABASE SEARCHER

This application is a continuation of application Ser. No. 08/749,374, filed Nov 20, 1996, U.S. Pat. No. 6,018,736, which is a continuation of application Ser. No. 08/317,040, filed Oct 3, 1994, abandoned.

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## MICROFICHE APPENDIX

This application contains a microfiche appendix consisting of 8 microfiche and 782 frames.

## FIELD OF THE INVENTION

The present invention relates to methods and apparatus for accessing databases generally and for accessing databases via the telephone, in particular.

## BACKGROUND OF THE INVENTION

Publications describing conventional methods and systems for accessing databases via the telephone and publications on subjects related to these technologies, such as speech recognition publications, include the following:

U.S. Pat. No. 4,608,460 to Carter, entitled "Comprehensive Automatic Directory Assistance Apparatus and Method Thereof";

WO Patent 88/02965 to Daudelin, entitled "Directory Assistance Call Processing and non-Supervisory Signal Monitoring Arrangements";

U.S. Pat. No. 4,650,927 to James, entitled "Processor Assisted Communication System using Tone-Generating Telephones";

U.S. Pat. No. 5,255,310, to Kim, entitled "Method of Approximately Matching an Input Character String with a Key Word and Vocally Outputting Data";

U.S. Pat. No. 4,674,112 to Kondraske, entitled "Character pattern Recognition and Communications Apparatus";

U.S. Pat. No. 5,214,689 to O'Sullivan, entitled "Interactive Transit: Information System";

WO Patent 89/00793 to Padden, entitled "Directory Assistance Systems";

U.S. Pat. No. 4,979,206 to Padden, entitled "Directory Assistance Systems";

U.S. Pat. No. 5,131,045 to Roth, entitled "Audio-Augmented Data Keying";

U.S. Pat. No. 5,052,038 to Shepard, entitled "Apparatus and Method for Obtaining information in a Wide-Area Telephone System with Digital Data Transmission Between a Local Exchange and an Information Storage Site";

U.S. Pat. No. 3,928,724 to Byram, entitled "Voice-Actuated Telephone Directory--Assistance System";

Church K. W., Phonological Parsing in Speech Recognition, Kluwer Academic Publ., 1987;

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Colangelo R. D., "Directory Assistance for the Visually Impaired", SouthEastcon 89, Vol 3, pp 1168-1171, 1989;

Fast L., Ballantine R., "Dialing a Name: Alphabetic Entry Through a Telephone Keypad", SIGCHI, Vol 20(2) pp 34, 1988;

Glowacz D., "RBOCs Vocalize Operator Services", Telephone Engineer & Management, Vol 95(7) pp 25-30, 1991;

Holmgren J. E., "Toward Bell System Applications of Automatic Speech Recognition", The Bell System Technical Journal, Vol 62(6) pp 1865-1881, 1983;

Jack M. A., "Design and Evaluation of Automated Telephone Services", IEE Colloquium on Telecommunications, pp 61-64, 1992;

Klatt D. H., "Review of Text-to-Speech Conversion for English", Journal of the Acoustical Society of America, Vol 82(3) pp 737-793, 1987;

Lennig M., "Putting Speech Recognition to Work in the Telephone Network", Computer, Vol 23(8) pp 35-41, 1990;

Myers C. S., Rabiner L. R., "An Automated Directory Listing Retrieval System based on Recognition of Connected Letter Strings", Journal of the Acoustical Society of America, Vol 71(3), pp 716-727, 1982;

Ohyama Minoru, "A Knowledge-Based Directory Assistance System", Future Generation Computer Systems, Vol 5(1) pp 109-117, 1989;

Peltz G. E., "Designing the Telephone Interface for Voice Processing Applications", Speech Technology, Vol 5(1) pp 18-21, 1989;

Schalk T. B., "Automating Operator-Assisted Calls Using Speech Recognition", Eurospeech 89, Vol 1 pp 441-444, 1989;

Veith R. H., "Information Retrieval via Telephone Keypad and Voice: Experiences with Telephone Directories", National Online Meeting Proceedings, Vol 1 pp 443-451, 1990;

Veith R. H., "Operator Assisted Services with Automated Responses", Audiotex, Vol 1 pp 19-28, 1986;

Rabiner L., Juang B., Fundamentals of Speech Recognition, Prentice-Hall, 1993, pp 43-52;

Hall, P. A. "Approximate string matching", Computing Surveys, Vol 12(4), pp. 381-402, 1980;

Salomaa, A., "Computation and Automata", Cambridge University Press, 1985, pp 44-55;

Tremblay, J. P.; Sorenson, P. G., "An introduction to data structures with applications", McGraw-Hill, 1976, pp 316-318;

Vitale, T. "An algorithm for high accuracy name pronunciation by parametric speech synthesizer", Computational Linguistics, Vol 17(3), pp 257-276, 1991;

Lorenz, A., Stochastic Automata Constructive Theory, John Wiley and Sons, 1974; and

Aldefeld, B. "Automated directory listing retrieval system based on isolated word recognition", Proceedings of the IEEE, Vol 68(11), pp 1364-1379, 1980

The disclosures of all above references and publications cited therein are hereby incorporated by reference

## SUMMARY OF THE INVENTION

The present invention seeks to provide an improved system for accessing a computerized database from a location which is not in computer communication with the database.

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There is thus provided in accordance with a preferred embodiment of the present invention a database accessing system for processing a request to access a database including a multiplicity of entries, each entry including at least one word, the request including a sequence of representations of possibly erroneous user inputs, the system including a similar word finder operative, for at least one interpretation of each representation, to find at least one database word which is at least similar to that interpretation, and a database entry evaluator operative, for each database word found by the similar word finder, to assign similarity values for relevant entries in the database, the values representing the degree of similarity between each database entry and the request.

Further in accordance with a preferred embodiment of the present invention the request includes a sequence of unambiguous representations of possibly erroneous user inputs

Still further in accordance with a preferred embodiment of the present invention the relevant entries include all database entries having the database word in an individual context

Additionally in accordance with a preferred embodiment of the present invention the request includes a sequence of ambiguous representations of possibly erroneous user inputs and also including an ambiguous input evaluator operative to identify at least one interpretation of each ambiguous representation and to provide the interpretation to the similar word finder

Further in accordance with a preferred embodiment of the present invention the ambiguous input evaluator includes a database analyzer operative to extract database characteristics from the database

Still further in accordance with a preferred embodiment of the present invention the system also includes a session manager receiving similarity values from the database entry evaluator and operative to interactively provide a user sensible message based on the similarity values

Additionally in accordance with a preferred embodiment of the present invention the session manager is operative to prompt the user to provide the request by orally spelling at least one database word

Further in accordance with a preferred embodiment of the present invention the session manager is operative to prompt the user to provide the request by pronouncing at least one database word

Still further in accordance with a preferred embodiment of the present invention the session manager is operative to prompt the user to provide the request by keying at least one database word on the keypad

There is additionally provided in accordance with a preferred embodiment of the present invention a database accessing system for processing a request to access a database including a multiplicity of entries, each entry including at least one word, the request including at least one ambiguous representation of at least one possibly erroneous user input, the system including an ambiguous input evaluator operative to identify at least one interpretation of each ambiguous representation, a similar word finder operative, for at least one interpretation of each representation, to find at least one database word which is at least similar to that interpretation, and a database entry evaluator operative, for each database word found by the similar word finder, to assign similarity values for relevant entries in the database, the values representing the degree of similarity between each database entry and the request

Further in accordance with a preferred embodiment of the present invention the relevant entries include all database entries having the database word in an individual context

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Still further in accordance with a preferred embodiment of the present invention the ambiguous input evaluator includes a database analyzer operative to extract database characteristics from the database

Yet further in accordance with a preferred embodiment of the present invention the system also includes a session manager receiving similarity values from the database entry evaluator and operative to interactively provide a user sensible message based on the similarity values

10 Additionally in accordance with a preferred embodiment of the present invention the session manager is operative to prompt the user to provide the request by orally spelling at least one database word

15 Further in accordance with a preferred embodiment of the present invention the session manager is operative to prompt the user to provide the request by pronouncing at least one database word

20 Yet further in accordance with a preferred embodiment of the present invention the session manager is operative to prompt the user to provide the request by keying at least one database word on the keypad

25 There is still further provided in accordance with a preferred embodiment of the present invention a database accessing method for processing a request to access a database including a multiplicity of entries, each entry including at least one word, the request including a sequence of representations of possibly erroneous user inputs, the method including finding, for at least one interpretation of each representation, at least one database word which is at least similar to that interpretation, and assigning similarity values for relevant entries in the database, for each database word found, the values representing the degree of similarity between each database entry and the request

30 35 There is provided in accordance with a preferred embodiment of the present invention a database accessing method for processing a request to access a database including a multiplicity of entries, each entry including at least one word, the request including at least one ambiguous representation of at least one possibly erroneous user input, the method including identifying at least one interpretation of each ambiguous representation, finding, for at least one interpretation of each representation, at least one database word which is at least similar to that interpretation, and for each database word found by the similar word finder, assigning similarity values for relevant entries in the database, the values representing the degree of similarity between each database entry and the request

40 45 50 55 In the present specification and claims, many examples from zip code database applications are provided in which address information is provided and, in response, the zip code of the address is accessed. However, the term "database" as used herein is intended to include any type of database including but not limited to databases including administrative and commercial data, databases including flight schedule databases, databases including technological data such as weather data, and databases including population data such as zipcode directories, classified and unclassified telephone directories

## 60 65 BRIEF DESCRIPTION OF THE DRAWINGS

The present invention will be understood and appreciated from the following detailed description, taken in conjunction with the drawings in which:

FIG 1 is a high level functional block diagram of a database access system constructed and operative in accordance with a preferred embodiment of the present invention;

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FIG. 2 is a flowchart illustrating a preferred method of operation for the spellguess unit of FIG 1;

FIG 3 is a flowchart illustrating a preferred method for generating the phonetic translator of FIG 1;

FIG. 4 is a flowchart illustrating a preferred method of operation for the dictionary lookup unit of FIG 1;

FIG 5 is a flowchart illustrating a preferred method of operation for database lookup and candidate sorter units of FIG 1;

FIG. 6 is a flowchart illustrating a preferred method of operation for the conversation manager of FIG 1;

FIG 7 is a flowchart illustrating a preferred method for loading the dictionary, similarity index, numeric index and trigram stochastic finite state automaton into memory, as well as for preparing the concordance;

FIG. 8 is a flowchart illustrating a preferred method for loading the database into memory and for updating the concordance prepared by the method of FIG. 7;

FIG 9 is a simplified block diagram of one implementation of the apparatus of FIG 1 in which the ambiguous input comprises telephone keypad input;

FIG 10 is a simplified block diagram of one implementation of the apparatus of FIG 1 in which the ambiguous input comprises output of a probabilistic spoken character recognition device;

FIG 11 is a simplified block diagram of one implementation of the apparatus of FIG 1 in which the ambiguous input comprises output of a probabilistic spoken phoneme recognition device;

FIG 12 is a diagram of the computer memory data structures serving the apparatus of FIG 1, including a dictionary, concordance and database storing typical data and the internal connections between these structures;

FIG 13 is a diagram of a similarity search index, storing typical data, which is useful in performing the dictionary look-up method of FIG 4

Attached herewith are the following appendices which aid in the understanding and appreciation of one preferred embodiment of the invention shown and described herein:

Microfiche Appendix A is a computer listing of a preferred software implementation of a telephone directory database access system;

Microfiche Appendix B is an example of an alphabet definition file

Microfiche Appendix C is an example of a "resource" file

Microfiche Appendix D is an example of a "conversation manager decision table" file

Microfiche Appendix E is an example of an "error messages" file

Microfiche Appendix F is an example of a "phonetic translation rules" file

#### DETAILED DESCRIPTION OF A PREFERRED EMBODIMENT

Reference is now made to FIG. 1 which is a high level functional block diagram of a database access system constructed and operative in accordance with a preferred embodiment of the present invention

The database access system includes an ambiguous input generator 10 and a database accessing unit 20 accessing a database on the basis of ambiguous input received from generator 10. The ambiguous input generator 10 provides ambiguous input such as ambiguous keystroke input or

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ambiguous speech input such as ambiguous oral character input or ambiguous oral phoneme input, as illustrated below with reference to FIGS 9-11 respectively

The output of the ambiguous input generator 10 is received by a spellguess unit 30 which is operative to select at least one string of symbols to which the ambiguous input might correspond, and preferably a plurality of strings of symbols, each associated with a probability. Each string of symbols may, for example, comprise a string of characters such as English language letters or may comprise a string of phonemes suitable for representing the dictionary alphabet. For example, the output of the spellguess unit may comprise the N most probable strings and their probabilities, where N is any suitable number such as 20

A preferred method of operation for spellguess unit 30 is described below with reference to FIG 2

A phonetic translator 40 receives the possible strings generated by spellguess unit 30 and translates each of them into phonetic form. A preferred method for generating translator 40 is described below with reference to FIG. 3. If translator 40 is generated by the method of FIG 3, the complexity of phonetic translator 40 is independent of the number of phonetic rules as described below with reference to FIG 3. Alternatively, however, conventional phonetic translation methods may be employed such as the methods described in the following publication:

Vitale, T. "An algorithm for high accuracy name pronunciation by parametric speech synthesizer", Computational Linguistics, Vol. 17(3), pp 257-276, 1991.

In the illustrated embodiment, the phonetic translator converts strings in the English alphabet to strings in a phonetic alphabet such as the DECvoice phonetic alphabet developed by Digital Equipment Corporation. More generally, however, the phonetic translator may be operative to translate strings from any first alphabet into any second alphabet. The DECvoice phonetic alphabet is described in the following publication:

Klatt, D H, "Review of text-to-speech conversion for English", Journal of the Acoustical Society of America, Vol. 82(3), p. 769

Alternatively, the phonetic translator may be omitted in which case the access to the dictionary may be based directly on the guessed strings rather than on the translation of the guessed strings into phonetic form

A dictionary look up unit 50 receives each phonetic or alphabetical string and conducts a similarity search within a dictionary 60

A preferred method of operation for dictionary lookup unit 50 is described below with reference to FIG 4

The dictionary 60 comprises an alphabetical or phonetically ordered or otherwise ordered list of some or all words or strings appearing in the database 70 which is to be accessed. A concordance 72 associates the dictionary 60 with the database 70. A similarity search index 74 allows the dictionary 60 to be searched for entries which are similar to a desired user-selected string. A numeric index 76 is provided if a telephone keypad is used which extracts from the dictionary all entries having a given numerical code. A trigram stochastic finite state automaton 78 stores trigrams and their probabilities and is accessed by spellguess unit 30, as described in more detail below

Dictionary 60, database 70, concordance 72, numeric index 76 and trigram stochastic finite state automaton 78 may be stored in any suitable electronic medium such as a hard disc or RAM. A preferred method for loading the

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dictionary, similarity index, numeric index and trigram automaton into memory, as well as for preparing the concordance, is described below with reference to FIG 7. A preferred method for loading the database into memory and for updating the concordance prepared by the method of FIG 7 is described below with reference to FIG 8.

Alternatively, the dictionary 60 may comprise the database itself, particularly if the database is small and/or if the database does not include many duplicated strings.

The output of the dictionary lookup unit 50 typically comprises, for each string received from unit 30 or 40:

- a A possibly empty list of dictionary entries whose similarity to the string is better than or equal to a predetermined similarity threshold; and
- b A similarity score representing the degree of similarity between that entry and the corresponding string.

EXAMPLE: The operation of spellguess unit 30, phonetic translator 40 and dictionary lookup 50 for the following ambiguous telephone keypad input: 228437463 is now described.

Spellguess unit 30 guesses various spellings, among which, for the purposes of this example, the word CATHERINE is assumed to appear. This word is input to the phonetic translator 40, which may translate it into (K Ae Th Eh R Ih N). The phonetically translated string is sent to the dictionary look up unit 50, which may produce the following list of dictionary words and corresponding similarity scores: (KATHERINE, 100), (CATHERINE, 100), (CATHYRINE, 95), (KATHERYN, 92), (KATHRINE, 92), (KATHRYN, 85), (CATHRYN, 85).

According to one embodiment of the present invention, the database 70 is now accessed by a database look up unit 90 so as to identify, for each dictionary entry, all database entries which include that dictionary entry.

Preferably, however, the database entries identified by database lookup 90 for each dictionary entry include only those database entries which include the dictionary entry in the correct context. For example, in zip code directory applications, a conversation manager 80 may direct the user to enter the name of the city of interest and subsequently to enter the name of the street of interest. In this case, the database entries identified for a dictionary entry comprising a putative street name comprise only those database entries having that street name.

Database lookup unit 90 generates and continually updates, as the call or database access session progresses, a similarity vector 92. The similarity vector 92 has a number of vector components which correspond to the number of database entries. Each similarity vector component stores a similarity score of the corresponding database entry. This similarity score is provided by the dictionary lookup 50 for each user-supplied word as the database access session proceeds. The database lookup 90 accumulates these similarity scores in the appropriate locations within the similarity vector.

After each word is supplied by the user, and the similarity vector is updated by the database lookup 90, or concurrently with the updating process, a candidate sorter 100 extracts a predetermined number of the highest scoring similarity vector components and stores these components in a best candidates box 94. The similarity vector 92 and best candidates box 94 are preferably stored in computer memory and are initialized at the beginning of each database access session.

A preferred method of operation for units 90 and 100 is described below with reference to FIG 5.

The conversation manager 80 receives the output of unit 90 or 100 and determines a course of action. The consider-

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ations of the conversation manager may, for example, include the following:

- a If one database entry has a similarity score which significantly exceeds the similarity score of all other candidates and which exceeds a threshold similarity score, this entry may be deemed correct and therefore is presented to the user for confirmation.
- b Typically, each entry in database 70 comprises a plurality of words or strings. For example, each entry in a zipcode directory typically includes some or all of the following words: state name, street name, street type, house number, locality. If this is the case, and processing of one string (such as "locality") does not provide a conclusive indication of the correct database entry, the conversation manager may decide to prompt the user to enter information identifying another word within the desired database entry (such as "street name").
- c If a small number of entries have similar or identical scores, the conversation manager may decide to present all of these to the user and prompt the user to select one of them about which s/he wishes to receive more information.
- d If a large number of entries have similar or identical scores and all strings within the entry have been processed, the conversation manager may wish to refer the user to the services of a human operator. In this case, the conversation manager 80 provides a suitable routing instruction to conventional telephone equipment which routes the user to a human operator.

A preferred method of operation for conversation manager 80 is described below with reference to FIG 6.

The output of the conversation manager is a suitable message to the user which is received by a text-to-speech voice synthesizer 110, such as DECvoice, commercially available from Digital Equipment Corporation, Maynard, Mass., USA or Text Assist, commercially available from Creative Labs, Inc., Milpitas, Calif., USA. Alternatively or in addition, the output of the conversation manager may be received by a pre-recorded voice player 115 which plays a selected message from among a plurality of recorded messages. Examples of a commercially available voice player 115 include the DECvoice or Sound Blaster, commercially available from Creative Labs, Inc., Milpitas, Calif., USA. The text-to-speech voice synthesizer 110 and/or the voice player 115 provide an audible message which is transmitted over the telephone line to the user.

As described briefly above, the apparatus of FIG 1 utilizes the following data structures in order to perform a similarity dictionary lookup, rather than an exact match lookup, and to support spell guess functions:

- a Word dictionary 60—A list of entries which includes a single entry for each uniquely spelled database word for which direct access is required.

For example, if the database is a zip code directory, the words in the database which are to be accessed directly may include only the localities or alternatively, the state as well as the street name and locality. The dictionary includes a count for every word appearance in the database in the specific context, and a pointer to the concordance. For example, if the word MARYLAND appears in the database as a state name, a city name and a street name, the dictionary will contain only a single entry for the word MARYLAND, with separate counters for the number of times the word appears as state name, city name and street name, and a single pointer to the concordance, which points to the first occurrence of the word MARYLAND in the concordance.

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b Concordance 72—A list of entries including a single entry for each occurrence of each dictionary word in the database Concordance entries relating to the same dictionary word are always arranged consecutively and sorted, within the dictionary word, according to the entry context (for example, appearances of the dictionary word in a locality context, followed by appearances of the dictionary word in a street name context) Each database entry is pointed to by all concordance entries corresponding to that database entry.

For example, the following database entry:

573 MARYLAND, BUFFALO, N Y 14201

will be pointed to by a corresponding MARYLAND entry in the concordance, a corresponding BUFFALO entry in the concordance and a corresponding NY entry in the concordance.

If database entries residing in consecutive addresses correspond to a plurality of concordance entries residing in consecutive addresses, the plurality of concordance entries may be replaced by a single entry pointing to the range of database entries.

The associations between the database, dictionary and concordance are illustrated in the diagram of FIG 12

c Similarity search index 74—An index into the word dictionary that enables access to the word dictionary by word similarity rather than by exact match of words

The similarity search index is preferably organized as an N-ary tree in which each node points to its left son and its right brother. An N-ary tree is a well-known data structure which is described in Tremblay, J. P.; Sorenson, P. G., "An introduction to data structures with applications", McGraw-Hill, 1976, pp. 316-318.

The similarity search index is built in several tree layers, such as 7 or 9 layers. Each layer corresponds to a different "reduced alphabet" of the dictionary alphabet, which may be either graphic or phonetic. One example of a reduced alphabet for the English language alphabet is an alphabet including, only two symbols, c for consonants and v for vowels. The correspondence between the English alphabet and the reduced alphabet is that all consonants are replaced by c and all vowels are replaced by v. More generally, a reduced alphabet is an alphabet that contains less symbols than an original alphabet and complies with the following criteria:

- 1) each symbol in the reduced alphabet represents a group of symbols of the original alphabet;
- 2) a symbol of the original alphabet appears in only one group; and
- 3) the union of all groups comprises the complete original alphabet.

Each layer of the similarity search index contains the same dictionary words but in a different reduced alphabet.

Each word in the similarity search index is represented in vector format with a reduced alphabet. A word in vector format is represented by a vector V of length L, where L is the number of symbols in the alphabet. Each element Vi of the vector contains the number of occurrences of the ith alphabetic symbol in the word. For example, given an alphabet {a,b,c} and a word "abbac", the vector representation is "2,2,1". To continue the above example of the {c,v} alphabet, the words BLAKE and GRACE will both be expressed by the pair "2,3". Each layer of the similarity search index is built with a different reduced alphabet adhering to the above guidelines.

FIG 13 illustrates an example of a "grapheme based" similarity search index for an English language dictionary. It

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is appreciated that, alternatively, a phonetic-based similarity search index may be employed. The index of FIG 13 is an N-ary tree which includes the following three layers:

Layer 1 is based on a single symbol reduced alphabet which transforms each English language word into its length

Layer 2 is based on a two symbol alphabet, which transforms each English word into an ordered pair (a,b) where a is the number of consonants in the word and b is the number of vowels

Layer 3 is based on three symbols, which transforms each English word into an ordered triplet (a,b,c) where a is the number of letters from among the set (P, F, B, V, W, T, D) in the word, b is the number of letters from among the remaining consonants in the word and c is the number of vowels in the word

Each dictionary word is mapped to one node in each index layer. For example, the word ADKINS appearing in FIG 13 is mapped into node (6) in layer 1 since ADKINS contains 6 letters, into node (4,2) in layer 2, since ADKINS contains 4 consonants and 2 vowels, and into node (1,3,2) in layer 3 since only the letter D belongs to the set (P, F, B, V, W, T, D), and there are 3 other consonants, and 2 vowels

d Numeric index 76—This index is organized as a balanced tree, and is employed when the ambiguous input generator is a keypad in which one number is used to represent a plurality of letters, such as a telephone keypad. The numeric index uses the ambiguous numeric input value keyed in by the user of the keypad to point directly to all dictionary entries having that numeric input value

e Trigram stochastic finite state automaton 78—An automaton that stores all trigrams appearing in the dictionary along with, their probabilities which are computed based on dictionary appearance frequencies. The trigram stochastic finite state automaton is employed by spell guess unit 30 to anticipate the probable spelling of any given ambiguous string

Reference is now made to FIG. 7 which illustrates a preferred method for loading the dictionary, similarity index, numeric index and trigram automaton into computer memory, as well as for preparing the concordance in the computer memory.

The method of FIG. 7 preferably includes the following processes:

- a Allocate data structures (process 570)—This process creates the initial structures for the word dictionary, the concordance, similarity search index, the numeric index and the trigram stochastic finite state automaton.
- b Scan dictionary words (process 580)—This loop reads all dictionary words from a dictionary organized as a sequential disk file. For each word the following processes are performed:
  - i Update word dictionary (process 590)—This process copies the word into the dictionary
  - ii Update similarity search index (process 600)—The word is translated into the reduced alphabet of every layer of the index. All index layers are searched, from the highest to the lowest level, and any missing words are added
  - iii Update numeric index (process 610)—If the numeric code of the word does not exist in the index, it is added. Once the numeric code of the word does exist, a pointer is added to it which points at the newly entered word
  - iv Extract trigrams (process 620)—All trigrams contained in the new word are stored in a temporary list

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Each time a trigram on the list appears, an associated frequency value is incremented. The trigram list including frequency values are employed to construct the automaton in process 640, once all dictionary words have been processed by loop 580. 5

Prepare concordance entries (process 630)—Each dictionary word occupies one or more entries in the concordance. The concordance entries are created at this time, but are not associated with database entries pointers until the database itself is loaded into memory

c. Create trigram stochastic finite state automaton (process 640)—Based on the trigram information (population and frequencies) accumulated by process 620, a stochastic finite state automaton is built. This automaton will be later used by spellguess unit 30 to guess the spelling of the ambiguous input string. A stochastic finite state automaton is described in the above-referenced publication by Lorenz.

Reference is now made to FIG. 8 which illustrates a preferred method for loading the database into memory and for updating the concordance prepared by the method of FIG. 7

The method of FIG. 8 preferably includes the following processes:

a. Allocate database (process 650)—Prepares the memory required to hold the entire database

b. Database scan loop 660—Reads a plurality of database entries stored in sequential format and residing on magnetic media, such as hard disk drive. For every database entry, the following processes are performed:

I. Place database entry in memory database (process 670)—Finds the next available place in memory database, places the database entry there, sets a direct pointer from every database word to the dictionary, and keeps the direct memory address in order to allow further direct addressing to the entry (from the concordance).

II. Inner database entry word scan loop (process 680)—Scans all the database entry words that are defined as requiring direct access through the dictionary and concordance. For every such word, the process performs the following two processes:

i. Locate word in dictionary (process 690)—Since the dictionary is loaded before the database, and since every word requiring direct access has to be present in the dictionary, this process locates the word entry in the dictionary, in order to locate the right entry in the concordance, that corresponds to this database entry.

ii. Update concordance (process 700)—Adds a pointer from the concordance entry to the database entry. This pointer establishes a link between a dictionary word and the corresponding database entries.

Reference is now made to FIG. 2 which illustrates a preferred method of operation for spellguess unit 30. As described above, spellguess unit 30 is preferably operative to select a plurality of strings of characters to which ambiguous input might correspond, each associated with a probability. In the illustrated embodiment, the output of the spellguess unit is the N most probable strings and their probabilities, where N is any suitable number such as 20.

The method of FIG. 2 preferably includes the following processes:

a. An initialization process 140 in which an initial string is constructed. The process then invokes a recursive string lengthening process 144, until all possible spelling alternatives have been checked.

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b. A recursive string lengthening process 144 including blocks 150-220 which generates a list of the N most probable strings and their probabilities, based on pre-known frequencies of various "trigrams" or 3-letter strings in the dictionary. Process 144 receives as input a partial string of length L whose probability has already been computed and computes the probability of at least one string of length L+1 which includes the input partial string. If the length of the partial string is less than 3 (if trigram frequencies are employed), the partial string is taken to include two "dummy" characters such as two #'s

c. Output process 230—the N most probable strings are copied onto a digital storage medium such as computer memory. Preferably, the N most probable strings are retained as a heap sorted by their probabilities.

For example, suppose that the numeric string "2874" is a keypad input to spellguess unit 30, which is intended by the caller to represent the name "BUSH". Spellguess unit 30 uses the method of FIG. 2 in order to produce a list of the most probable strings represented by the numeric string "2874", along with their probabilities.

An example of such a list is as follows: (BURG, 0.1611), (BURI, 0.1259), (CURG, 0.1118), (BUSH, 0.1086), (CUSH, 0.1018), (CURI, 0.0874).

As described in detail below, the probability of an individual candidate string is based on the probabilities of each trigram included in the string. For example, the probability assigned to BURG might be roughly the product of the known frequencies of occurrence of each of the following trigrams: BUR, URG.

The blocks of the recursive spellfinding process are now described in detail:

Block 150: "Minimum probability" is typically 0 if less than N strings have been accumulated. If N strings have already been accumulated, "minimum probability" is equal to the probability of the least probable of the N strings.

If the probability of the input partial string is less than "minimum probability", the process backtracks to the previous recursive level because the probability of the input partial string will only decline further as its length increases.

Block 160: If the partial string is, in fact, a "final" string, i.e. a string of the length which the user entered, then it is entered onto a list, typically organized as a heap, of most probable strings (block 190). Otherwise, the process advances directly to block 200.

If the list already contains N strings (block 170), the lowest probability string is discarded (block 180) before the new string is inserted (block 190).

At this point, the string is lengthened by considering the possible characters which might fill the (L+1)'th position in the string. For example, if keypad input is employed and the user punched the #2 key for the L+1'th position, the candidate characters are A, B and C. For each candidate character, blocks 210 and 220 are performed.

Block 210: The candidate character is concatenated with the partial string and the probability of the new, longer partial string is defined by generating the product of the probability of the previous partial string and the probability of the trigram consisting of the last three characters of the new, longer partial string.

Block 220: The next recursive level of the string lengthening process begins, thereby to add yet another character to the current partial string.

Reference is now made to FIG. 3 which illustrates a preferred method for generating phonetic translator unit 40. As described above, phonetic translator unit 40 is preferably

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operative to convert strings from one alphabet (such as English), into another alphabet (such as the DECvoice phonetic alphabet) The complexity of the phonetic translator is  $n$ , where  $n$  is the length of the string to be converted, regardless of the number of phonetic translation rules The method of FIG. 3 preferably includes the following processes:

Process 260: Load translation rules: read an external file that describes phonetic translation rules for translating between the alphabets employed For example, Appendix F is a description of the phonetic translation rules for translating from English to DECvoice Preferably, the syntax of the external file is checked The structure of a rule is as follows:

grapheme→phoneme/"preceding substring" \_ "following substring"

The above rule instructs the phonetic translator to translate a certain grapheme to a certain phoneme if the grapheme is preceded by a certain "preceding substring" and is followed by a certain "following substring" Any of the phoneme, preceding substring and following substring can be empty

Following are some examples of phonetic translation rules:

BB→B double Bs sound like a single B (BUBBLE)

PH→F P followed by H always sound like F (PHONE)

O→Uh/W\_L O preceded by W and followed by L, sounds like the phoneme Uh (WOLF)

Y→Ay/c\_cE Y preceded by any consonant and followed by a consonant that is followed by E, sounds like (BYTE)

A non-deterministic automaton is now generated. Processes 270, 272 and 274 create a single non-deterministic finite state automaton (NDFSA) from all the phonetic translation rules loaded in process 260 Each of these processes is now described in detail:

Process 270: Build states S0, S1 and S2 where: S0 is the initial state for all rules that have 2 characters in their "preceding substring" S1 is the initial state for all rules that have 1 character in their "preceding substring", and S2 is the initial state for all rules that do not have a "preceding substring".

Additional states may be defined similarly if it is desired to accommodate preceding strings which are more than 2 characters long

Process 272: Add unconditional transitions from S0 to S1 and from S1 to S2 such that the entire grapheme alphabet causes the automaton to proceed from state S0 to S1 or from S1 to S2

Process 274: Build a subautomaton for each phonetic rule The subautomaton for an individual phonetic rule has  $n$  states, where  $n$  is the total number of characters in the "preceding substring", the grapheme and the "following substring" The last,  $n$ 'th, state is also termed herein the Accepting State Add transitions from each state to the next state which are respectively determined by the characters of the preceding substring, grapheme and following substring The output generated by the subautomaton is the phoneme which the rule in question associates with the preceding substring, grapheme and following substring

For example, the rule O→Uh/W\_L, has 3 states, such as for example (S10,S11,S12) and 3 transitions: W as preceding substring causes a transition from the initial state to state S10, O as grapheme causes a transition from S10 to S11, and L as following substring causes a transition from S11 to the accepting state S12. The output of the subautomaton for the above sample rule is the phoneme (Uh) Since this rule has

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one character, W, in the "preceding substring", then state S1 serves as its initial state. Therefore, the subautomaton for this rule comprises the following transitions: (S1,W,S10), (S10,O,S11), (S11,L,S12)

Process 280: Convert the non-deterministic automaton (NDFSA) constructed in processes 270-274 into a deterministic finite state automaton (DFSA) including all the phonetic translation rules The conversion process may be based on well known methods, such as the conversion method described in Salomaa, A., *Computation and automata*, Cambridge University Press, 1985, pp. 44-55.

Process 290—Build states matrix: Convert the DFSA created by process 280 into a matrix, where the rows correspond respectively to the states in the DFSA and the columns correspond respectively to the possible inputs i.e to the grapheme alphabet The contents of each matrix cell includes: the next state, whether the state is an accepting state or not, and the phoneme generated by an accepting state

Once the phonetic translator 40 has been generated as described above, the phonetic translator is operative to translate a graphic word into a phonetic word as follows:

Given a graphic word, such as a word in English, apply the states matrix created in process 290 thereon, and output a phonetic word, which is the phonetic representation of the input grapheme word The following examples illustrate the outputs of the phonetic translator unit 40 for a variety of inputs:

grapheme input word: BUBBLE phonetic output word: B  
Ah B L

grapheme input word: PHONE phonetic output word: F  
Ao N

grapheme input word: BYTE phonetic output word: B Ay  
T

grapheme input word: WOLF phonetic output word: W  
Uh L F

Reference is now made to FIG. 4 which illustrates a preferred method of operation for dictionary lookup unit 50 of FIG. 1

The input to the dictionary look up unit 50 are the strings that were guessed by spellguess unit 30, if the phonetic translator is omitted from the system of FIG. 1, or the strings that were generated by the phonetic translator unit 40 Dictionary look up unit 50 does not search for an exact match with the input strings, but rather performs a similarity search in order to find all dictionary words that are similar, to a predetermined extent, to the input strings, if not necessarily identical Dictionary look up 50 uses a similarity threshold in order to define the predetermined extent of similarity

The method of FIG. 4 preferably includes the following process:

a Initialization (process 310)—Determine the similarity threshold to be used. Appendix C is a resource file in which one suitable similarity threshold is defined The string for which it is desired to find similar dictionary words is translated into each of the reduced alphabets of the layers in the similarity search index For example, if it is desired to find dictionary words which are similar to ADCINS using the similarity index illustrated in part in FIG. 13, ADCINS is translated into (6) in the layer 1 alphabet, (4,2) in the layer 2 alphabet, and (1,3,2) in the layer 3 alphabet

b Scan similarity search index (process 320) A similarity search index, the structure of which is described above with reference to FIG. 13, is scanned recursively, layer

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by layer, in order to find all dictionary words that are similar (better than or equal to the similarity threshold) to the input string arriving from spellguess 30 or translator 40

Process 320 recursively invokes processes 330-370 in order to perform a depth-first search for similar nodes. The search employs a conventional distance-between-strings computation method to compute the distance between each node and the input string represented in the reduced alphabet of the layer to which the node belongs

A suitable method for computing distance between strings is described in Hall, P. A "Approximate string matching", Computing surveys, Vol. 12(4), pp 381-402, 1980

Parameters may be externally defined to determine the relative costs of symbol insertion and symbol deletion, for each symbol in the dictionary and reduced alphabets and for symbol substitution, for each pair of symbols in the dictionary and reduced alphabets. For example, Appendix B is a sample "cost schedule" including costs for symbol insertion, deletion and substitution.

It is appreciated that either a spoken language alphabet or a phonetic alphabet may be used as the dictionary alphabet

The output of this step is a set of all dictionary words whose similarity to the "dictionary alphabet" representation of the input string is equal to or exceeds the similarity threshold defined in the initialization process 310

Reference is now made to FIG. 5 which illustrates a preferred method of operation for the database lookup unit 90 and the candidate sorter unit 100 (FIG. 1). The database lookup unit 90 accepts as input each individual dictionary entry in the list of dictionary entries generated by dictionary lookup unit 50 along with its similarity score, also computed by dictionary lookup unit 50, and its entry context (last name, first name, etc.)

The database lookup unit 90 operates for each database entry component. For example, in zip code directory applications, the database lookup unit 90 operates after the state name is elicited from a user, then after the city's name is elicited and then after the street name is elicited. After each operation, the database lookup unit 90 updates the similarity vector 92 (FIG. 1) such that the similarity vector accumulates a similarity score for each database entry.

The output of the database lookup 90 and the candidate sorter 100 is a list of a predetermined number of database entries which are most similar to the words supplied by the user thus far, sorted according to their similarity scores. This list if stored in the best candidates box 94 of FIG. 1

The method of FIG. 5 preferably includes the following processes:

a. Initialization (process 380)—Uses concordance 72 to find the logical and physical location of all database entries that include the requested dictionary entry value in the appropriate context. For example, if the user supposing SMITH as a For name, all subscribers whose last name is similar to Smith will be located.

If this is the first database look up in the database access session, initialization process 380 also clears the similarity vector 92 and the best candidates box 94

b. Database scan (process 390)—Scans all the database entries that were selected by the initialization process 380. For each entry, the following 2 processes are performed:

i. Update database entry similarity score (process 400)—For each database entry, updates the similarity score by modifying the similarity score to reflect the degree of similarity of that database entry to the current word. For example, the word similarity score may be added to the appropriate similarity vector component

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ii. Update best candidates box (process 410)—Determines whether or not the previously updated database entry has to be included in the best candidates list, based on the following criteria:

if the database entry is already in the best candidates box, it is kept there with the new score updated if the best candidates box is not full, the database entry is added unconditionally if the best candidates box is full and the similarity score of the updated database entry is higher than the last (worst score) database entry in the candidates box, the last database entry is replaced with the new one

At the end of processes 380 through 410, the similarity vector includes updated similarity scores and the contents of the best candidates box is determined. At this point, a candidate sorter 100 is invoked in order to resort the selected database entries in the best candidates box. The current ordering in the best candidates box is based on the sum of similarity scores of individual words where the similarity score of any word, if under a predetermined threshold, is considered to be zero. The candidates sorter computes the similarity of each zero-scoring word.

Specifically, the candidate sorter 100 preferably performs the following processes:

- a. Best candidates scan (process 420)—Scans all the database entries in the best candidates box
- b. Single candidate words scan (process 430)—Scans all the words of a single database entry in the best candidates box. This process decides whether the similarity score of any one of the database entry strings may be improved, according to the following criteria:

the word was supplied by the caller; and

the word's similarity score is 0.

For each of the words fulfilling this criteria, the process invokes 2 additional processes (improve similarity 440, and update best candidates 450), in order to refine the similarity scores, first at the word level and then at the database entry level.

- c. Improve similarity scores (process 440)—Reinstates a minimum edit distance similarity check, similar to process 330 in FIG. 4, between a current database entry word in the best candidates box 94 and each word previously guessed by the spellguess unit 30, using a lower threshold measure than that originally employed by process 330. If the resulting similarity score differs from 0, the word similarity score and the database entry similarity score are both updated in process 450

- d. Update best candidates box (process 450)—Compute the total similarity score of each changed database entry in the best candidates box and the similarity vector.

- e. Candidate sorter (process 460)—Sorts the entire best candidates box according to the similarity score, using a suitable conventional sort mechanism, such as a heap

The output of the entire database lookup 90 and candidate sorter 100 is a list of all best candidates database entries, sorted according to their similarity scores

Reference is now made to FIG. 6 which illustrates a preferred method of operation for the conversation manager 80. The conversation manager controls the conversation between the caller and the system, from the moment the caller gains access to the computer and until the conversation is finished. The actions taken by the conversation manager, including message providing action, depend on the contents of the best candidates box 94

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The conversation manager 80 is preferably implemented as a state machine whose logic is defined by a decision table. A sample decision table, which is internal to the system, is provided in Appendix D. However, the decision table is preferably completely external to the system to enable it to be easily modified.

The conversation manager 80 includes three building blocks: the state, the condition and the action. The conversation begins at the initial state, and each additional item of information acquired, leads the conversation to a different state. At each state, the conversation manager checks for the first condition that is fulfilled, and performs the action that is associated with the state and the condition. After that, the conversation manager proceeds to the next state. For example, one state may be "beginning of conversation", a condition may be "was a word entered by caller?", and an action may be "propose a selection list", or "search the database".

The method of FIG. 6 preferably includes the following processes:

- a Initialize conversation+welcome user (process 470)— Set the conversation to the initial state, and, typically, provide a welcome message, which includes the instructions for using the database access system
- b Check condition (processes 480, 490 and 540)—Check whether the condition associated with the state is fulfilled or not. At least one condition has to be fulfilled per state, so the conversation manager loops until it finds the first one
- c Action (process 500)—Perform the action that is associated with the state and with the first condition that is fulfilled
- d End of conversation (process 510)—If the system enters the "end of the conversation" state, the conversation is ended
- e Transfer to operator (processes 520 and 550)—If the conversation manager comes to the conclusion that the conversation has to be transferred to a human operator, it generates the appropriate routing instructions. This action may be useful, if for example, the conversation is too long, or the information provided by the caller does not identify a specific piece of information, or if the caller requests to be transferred to a human operator
- f New state (process 530)—The conversation manager proceeds to a new state, once it has finished handling the actions of previous state.

Reference is now made to FIG. 9 which is a simplified block diagram of one embodiment of the apparatus of FIG. 1 in which the ambiguous input comprises telephone keypad input. In the embodiment of FIG. 9, the ambiguous input generator 10 of FIG. 1 includes a plurality of conventional telephone instruments 715 communicating via a telephone network with database accessing unit 20 via a conventional DTMF (dual tone multiple frequency) detection module 720 which is operative to convert the keystroke information into conventional digital data signals such as ASCII data signals.

In the embodiment of FIG. 9, the ambiguous input is keystroke information wherein each key corresponds to more than one letter of the English alphabet and may also correspond to the digit corresponding to the key. The data is ambiguous because every letter is entered by a single stroke on one of the telephone keypad buttons, and every button represents up to 3 different letters. For example, button 2 represents either A or B or C, while button 3 represents either D or E or F. For example, the sequence of digits "2"; "3"

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could represent any of the following letter combinations: AD, AE, AF, BD, BE, BF, CD, CE, CF, as well as combinations of letters and the numbers "2" and "3". So, a string of length n can be interpreted in 3 to the power of n different ways. For example, a sequence of 6 keystrokes corresponds to 729 alternative words. For example, the names ARNOLD and BROOKE are keyed with the same keystroke sequence (276653). The same is true with names like BREEN and ARDEN (27336), or BUSH and BURG (2874).

Reference is now made to FIG. 10 which is another embodiment of the apparatus of FIG. 9 in which the ambiguous input is ambiguous oral character input rather than ambiguous keystroke input. In the embodiment of FIG. 10, the ambiguous input generator 10 of FIG. 1 comprises a plurality of telephone instruments 740 or other speech input devices providing ambiguous speech input to the database accessing unit 20 via a probabilistic spoken character recognition device 750.

The probabilistic spoken character recognition device 750 is similar to conventional speech recognition units, except that the output is probabilistic. In other words, the final decision stage in which probabilistic input, as to the contents of the speech, is reduced to a single possibility, typically by selecting the most probable speech content, is omitted.

A design suitable for a probabilistic spoken character recognition device is described in Rabiner L., Juang B., *Fundamentals of Speech Recognition*, Prentice-Hall, 1993, pp. 43-52.

In this embodiment, the user is prompted to provide oral input by spelling the desired words. For example, the conversation manager may prompt the user to "SPEL L THE STREET NAME YOU ARE LOOKING FOR".

The input provided by device 750 is ambiguous since the probabilistic spoken character recognition box 750 outputs several possible characters, along with their relative probabilities, for every input spoken character. For example, a user's attempt to utter a "D", may be interpreted by the probabilistic spoken character recognition box 750, as "B" with probability 0.5, "D" with probability 0.3, and "T" with probability 0.2. A subsequent utterance of the letter "D", may yield different output (letters and probabilities).

Reference is now made to FIG. 11 which is another embodiment of the apparatus of FIG. 1 in which the ambiguous input comprises ambiguous spoken phoneme input rather than ambiguous oral character input.

In the embodiment of FIG. 11, the ambiguous input generator 10 comprises a plurality of telephone instruments 760 or other speech input devices, and a probabilistic spoken phoneme recognition box 770. In this embodiment, the user is assumed to provide speech input in the form of spoken words. For example, the conversation manager may prompt the user to "STATE THE STREET NAME YOU ARE LOOKING FOR".

The probabilistic spoken phoneme recognition device 770 is similar to conventional speech recognition units, except that the output is phonemes with associated probabilities. In other words, the final decision stage in which probabilistic input, as to the contents of the speech, is reduced to a single possibility, typically by selecting the most probable speech content, is omitted. A suitable design for a probabilistic spoken phoneme recognition device is described in Rabiner L., Juang B., *Fundamentals of Speech Recognition*, Prentice-Hall, 1993, pp. 43-52.

For example, the word "DAVE" may be phonetically broken into the following phonemes: D, Ey and V (when using a certain phonetic alphabet).

When the word "DAVE" is input to a probabilistic spoken phoneme recognition box 770, it may recognize every

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phoneme in several ways, with a certain probability applied to every phoneme. For instance, the first phoneme may be expressed as "(D, 0 4), or (B, 0 4), or (T, 0 2)"; the second phoneme may be expressed as "(Ey, 0 6) or (Eh, 0 3), or (Ay, 0 1)"; and the third phoneme may be expressed as "(V, 0 8), or (B, 0 1), or (F, 0 1)".

Microfiche Appendix A is a computer listing of a preferred software implementation of a telephone directory database access system which utilizes an "alphabet definition" file, a "resource" file, a "conversation manager decision table" file, an "error messages" file, and a "phonetic translation rules" file.

Microfiche Appendix B is an example of an alphabet definition file.

Microfiche Appendix C is an example of a "resource" file.

Microfiche Appendix D is an example of a "conversation manager decision table" file.

Microfiche Appendix E is an example of an "error messages" file.

Microfiche Appendix F is an example of a "phonetic translation rules" file.

The terms "resource" file, "conversation manager decision table" file, "error messages" file, and "phonetic translation rules" file are now explained in detail.

The Alphabet Definition file contains a definition of the various alphabets used in the system, and the translation rules between the various alphabets. A description of an example of an alphabet definition file, appended hereto and referenced.

Microfiche Appendix B is as follows:

The title "ALPHABETS" designates the beginning of the alphabet definition section. This section contains the following fields:

I Name—The alphabet name. Note that the alphabets named "clusterX" are reduced alphabets.

II Type—The alphabet type. The permitted types are:

1 String—regular alphabet

2 Normal—regular alphabet, but all the letters are kept normalized—i.e., instead of using the regular ASCII values to represent the alphabet letters, they are represented as consecutive numeric values starting from 1.

3 Vector—an alphabet that is kept in vector form. A word in this form comprises a vector, whose size is equal to the alphabet size. The i'th entry in the vector contains the number of occurrences of the respective letter in the word.

III absize—size of the alphabet

IV Attribute—Information regarding the correct interpretation of the "value" field (field V). The permitted attributes are:

1 Letters—The "value" field contains the list of letters in the alphabet.

2 Cost—the "value" field contains the insertion cost, deletion cost and substitution cost, in that order, of the alphabet.

3 Inscost—the "value" field contains only the insertion cost of the alphabet.

4 Delcost—the "value" field contains only the deletion cost of the alphabet.

5 SubsX—the "value" field contains the costs of substituting each of the symbols of the alphabet for a symbol X in the alphabet which exists in a particular word. X may be represented by one or more characters. For phonetic alphabets, X is often represented by two characters.

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V. Value field

The title "TRANSLATION" in Microfiche Appendix B designates the beginning of the Translation section. This section contains the following fields:

I From—the name of the source alphabet

II To—the name of the target alphabet

III From letters—letters from the source alphabet which are to be translated into the target alphabet

IV To letters—the corresponding letters in the target alphabet

Translations in which, generally speaking, one or more symbols in the source alphabet are translated into a unique symbol in the target alphabet appear in Microfiche Appendix B. However, the translation from a grapheme alphabet to a phonetic alphabet is not defined here but rather in the "phonetic translation rules" file, an example of which is appended hereto and is referenced. Microfiche Appendix F.

The term "Resource File" is now defined. An example of a resource file is appended hereto and is referenced as Appendix Microfiche C.

The resource file is a key translating logical names used by the system, such as file names, into actual values. Typically, the system recognizes only logical names for each file and each logical name is translated into a specific disk file with the help of the resource file. The resource file is also used for message texts, special run-time thresholds and switches.

Each line of the resource file contains three fields: logical name, actual value and remarks. The logical name may not contain blanks. If an actual value contains blanks, the actual

value is truncated at the first blank. If blanks are to be inserted within the actual value, the actual value should be enclosed in apostrophes. In this case the actual value may span more than one line, provided that each line contains apostrophes at the beginning and end of the line.

The file may contain the #include directive, whose meaning is similar to that of the #include directive in the "C" programming language. This directive allows the inclusion of another resource file into the current resource file. Resource files may be nested in that manner to any desired nesting level.

In case the same logical name appears more than once, only the first occurrence is used. Thus it is possible to create a standard #include file that will contain default parameters. Those parameters can be overridden if the logical name appears before the #include of the standard file. The logical names of the resource file are case-insensitive. The resource file is loaded into memory by the loadResourceTable routine. The translation from logical name to actual value is performed by the member function "allocate" which belongs to class "ResourceBox", or by the member function "ValueOF", also belonging to the "ResourceBox" class.

The term "Conversation Manager Decision Table" is now described. An example of a "conversation manager decision table" is appended herein and is referenced. Microfiche Appendix D. The conversation manager 80 of FIG. 1 is driven by a central decision table, which contains States, Conditions and Actions.

The decision table contains one or more "Header" lines. Each Header line contains titles of all fields in the decision table. The first field is termed the "line label" field, the second field is termed the "state" field, and the rest of the fields are conditions (denoted by C in the title line) and actions (denoted by A in the title line).

The "line label", designated in the first field, is a unique identification of each line in the file. It is used in order to keep the "session history"—a log of the actions that were taken in the current session.

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The conversation manager 80 of FIG 1 scans the Decision Table line by line, and for each line checks if all the conditions in that line are met (i.e., have the required value), until a line is found which satisfies all the conditions. The actions of this conditions-satisfying line are performed in the order in which they appear in that line. 5

The Decision Table is compiled into a C++ source code by the routine "createDecisionTB". This is the source code of the "decide" member function which belongs to the "Con- 10 vManager" class.

The term "Error Messages" file refers to a file in which all possible error messages are stored. An example of an "error messages" file is appended hereto and is referenced Micro- 15 fiche Appendix E.

Microfiche Appendix E contains a set of error messages 15 that are displayed and written to the log file (error log) in case an error occurs during the system execution. Each message is identified by a message name (up to 18 characters long), a severity code and message text. The permitted severity codes are: F for fatal, E for error, W for warning, 20 and I for informational. A fatal error causes the system to abort. All other message types allow the system's execution to proceed. 25

Each error message may contain up to three parameters, which are enclosed in brackets, e.g. <file name>. Each 25 parameter is replaced by an actual value when the error message is invoked. The "error" routine accepts the actual values and inserts them into the error message. Then it displays the error message on the screen, and writes it to the log file. For fatal errors—it aborts the system. 30

The "Phonetic Translation Rules" file contains all phonetic translation rules employed by phonetic translator 40 of FIG 1 to translate grapheme words into a phonetic representation. An example of a "phonetic translation rules" file is appended hereto and is referenced Microfiche Appendix F. 35

The syntax for Phonetic Rules employed in Microfiche Appendix F is given below in BNF format. BNF is a conventional scheme for representing formal languages

```

<rule> ::= <grapheme string> -> <phoneme string>
<grapheme string> -> <phoneme string> / <preceding
    substring>
<grapheme string> -> <phoneme string> / _ <following
    substring> | <grapheme string> -> <phoneme string> /
    <preceding substring> _ <following substring>
<preceding substrings> ::= <grapheme sequence>
<following substrings> ::= <grapheme sequence>
    <grapheme sequence> ::= <grapheme letter> |
    <grapheme sequence> <grapheme letter>
<grapheme letter> ::= <grapheme character> | ! <grapheme
    character>
<grapheme character> ::= grapheme | \v | c | [ <grapheme
    string> ]
<grapheme string> ::= grapheme | <grapheme
    string> grapheme
<phoneme string> ::= phoneme | <phoneme
    string> phoneme

```

A grapheme is a symbol in the grapheme alphabet as defined in the alphabet definition file. A phoneme is a symbol in the phoneme alphabet, as defined in the alphabet definition file. The dot (.) represents a "don't care" symbol, and can stand for any grapheme symbol. 55

The lower-case v symbol stands for any vowel. The lower-case c symbol stands for any consonant. The square brackets enclose a list of alternative grapheme symbols. For example, the rule: G->Jh/\_/[E] means: grapheme G is 60 translated to phoneme Jh if it followed by either E or I

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A preferred method for generating a telephone directory database access system based on the listings of Microfiche Appendices A—F is as follows:

- a Provide the following hardware environment: fully compatible IBM PC 386 or higher, Sound Blaster audio card
- b Provide the following software environment: MS-Windows 3.1, Monologue for Windows Text-to-Speech synthesizer from Creative Labs, Borland C++ 3.1 & Application Framework for Windows
- c Microfiche Appendix A is written in C++, and contains classes as well as the source code itself. Compile and link the code of Microfiche Appendix A; thereby to create a single executable image.
- d Provide the following input files which are required to operate the system:
  - 1 Database—according to the format described in class ListingRecord
  - 2 Dictionary—according to the format described in class NameDictionary
  - 3 Alphabet definition—description of the alphabets used, and the various costs for spelling mistakes. An example of an alphabet definition file is Microfiche Appendix B
  - 4 Resource file—description of all files and parameters needed to run the system. An example of a resource file is Microfiche Appendix C
  - 5 Conversation manager decision table—description of the conversation flow. An example of a conversation manager decision table file is Microfiche Appendix D
  - 6 Errors—the textual description of possible system errors. An example of an errors file is Microfiche Appendix E
  - 7 Phonetic translation rules—description of the phonetic rules. An example of a phonetic translation rules file is Microfiche Appendix F

e Run the executable image generated in step c. In the illustrated embodiment, the following output files are created during system operation:

- 1 Error log—description of errors encountered during execution
- 2 Log—information and statistics on a single use of the system
- 3 Session—recording of the conversion handled in a single use of the system

It is appreciated that the software components of the present invention may, if desired, be implemented in ROM (read-only memory) form. The software components may, generally, be implemented in hardware, if desired, using conventional techniques. 55

It is appreciated that the particular embodiment described in the Appendices is intended only to provide an extremely detailed disclosure of the present invention and is not intended to be limiting.

In the present specification and claims, the term "probabilistic string" refers to a sequence S over an alphabet A (such as the English alphabet, any non-English alphabet, the phonetic alphabet or any other set of characters) of n elements where each element S<sub>i</sub> is a finite non-empty set of (character, probability) pairs.

The term "keypad" refers to an input device including a plurality of input buttons or keys each of which, separately or in combination with other input buttons or keys, represents one or more characters. For example, each key on a conventional telephone keypad represents three, two or only one characters.

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The term "erroneous user input" refers to a database accessing request provided by a user which comprises an inaccurate production of a word in the database. The inaccuracy may comprise one, some or all of the following types of inaccuracy: spelling inaccuracy, pronunciation inaccuracy or factual inaccuracy.

The term "spelling inaccuracy" refers to a cognitive or typographical error which results in an incorrect spelling of a database word. For example, a user wishing to access a street name BROADWAY may key in or spell out BROAW-10 DAY or DROADWAY. A user wishing to access a locality PHILADELPHIA may key in or spell out FILADELFIA.

The term "pronunciation inaccuracy" refers to an incorrect oral rendition of a database word. For example, a user wishing to access the name MARIE may state this request as "MARY".

The term "factual inaccuracy" refers to provision of incorrect information. For example, a user wishing to access JOHN REMINGTON may request JACK REMINGTON.

It is appreciated that the user accessing the system shown and described herein can be either a human user or a computerized system.

It is appreciated that the ambiguous input may, alternatively, comprise the output of an OCR (optical character recognition) device such as a handwriting recognition device.

It is appreciated that various features of the invention which are, for clarity, described in the contexts of separate embodiments may also be provided in combination in a single embodiment. Conversely, various features of the invention which are, for brevity, described in the context of a single embodiment may also be provided separately or in any suitable subcombination.

It will be appreciated by persons skilled in the art that the present invention is not limited to what has been particularly shown and described hereinabove. Rather, the scope of the present invention is defined only by the claims that follow:

What is claimed is:

1. A database accessing system for processing a database query, the database including a multiplicity of entries each of which has a predetermined structure comprising at least first and second words, the database query including a sequence of at least first and second inputs corresponding to said first and second words respectively, each input including a plurality of input elements, the system including;

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a dictionary of all words in said database; a dictionary searcher operative to find words in said dictionary which resemble each of said inputs and to assign to each found word a similarity score describing the degree to which said word resembles said input; and a database searcher operative to use said similarity scores in order to find entries in said database whose words, have cumulative scores which indicate that they most resemble said query.

2. A system according to claim 1 wherein the similarity score assigned to an individual word depends only on the absolute degree of resemblance of the individual word to said input and does not depend on the relative degree to which the individual word resembles said input, in relation to the degrees to which other words in the dictionary resemble said input.

3. A system according to claim 1 wherein the words found by the dictionary searcher comprise all words which exceed a predetermined word-level resemblance threshold rather than comprising a predetermined number of best words.

4. A system according to claim 1 wherein said database searcher includes:

a candidate entry searcher operative to find all entries which exceed a predetermined entry-level resemblance threshold rather than comprising a predetermined number of best entries; and

a conversation manager operative, if more than one entries are found by the candidate entry searcher, to hold an interactive conversation with a human user in order to allow the human user to select from among the more than one entries found by the candidate entry searcher.

5. A system according to claim 1 wherein at least one of said inputs comprises a spoken word and at least one of said input elements comprises a phoneme.

6. A system according to claim 1 wherein at least one of said inputs comprises an orally spelled word and at least one of said input elements comprises an orally spoken letter.

7. A system according to claim 1 wherein at least one of said inputs comprises a sequence of keystrokes and at least one of said input elements comprises a keystroke.

\* \* \* \* \*

# EXHIBIT C

## PART 1

AGREEMENT AND PLAN OF MERGER  
by and among  
SCANSOFT, INC.  
NOVA ACQUISITION CORPORATION  
NOVA ACQUISITION LLC  
and  
NUANCE COMMUNICATIONS, INC.  
Dated as of May 9, 2005

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**INDEX OF EXHIBITS**

Exhibit A

Form of Nova Voting Agreement

Exhibit B

Form of Saturn Voting Agreement

Table of Contents**AGREEMENT AND PLAN OF MERGER**

THIS AGREEMENT AND PLAN OF MERGER is made and entered into as of May 9, 2005 (the "Agreement"), by and among ScanSoft, Inc., a Delaware corporation ("Saturn"), Nova Acquisition Corporation, a Delaware corporation and a wholly-owned subsidiary of Saturn ("Sub I"), Nova Acquisition LLC, a Delaware limited liability company and a wholly-owned subsidiary of Saturn ("Sub II" and with Sub I, the "Subs"), and Nuance Communications, Inc., a Delaware corporation ("Nova").

**RECITALS**

WHEREAS, the Boards of Directors of Saturn, Sub I and Nova have each determined that it is in the best interests of their respective stockholders for Saturn to acquire Nova through the statutory merger of Sub I with and into Nova (the "First Step Merger") and, in furtherance thereof, have approved the First Step Merger.

WHEREAS, as soon as practicable following the First Step Merger, Saturn shall cause Nova to merge with and into Sub II (the "Second Step Merger" and, taken together with the First Step Merger, the "Integrated Merger" or the "Merger"). The Integrated Merger is intended to constitute a "reorganization" within the meaning of Section 368(a) of the Internal Revenue Code of 1986, as amended (the "Code"). Saturn and Nova intend that the First Step Merger and the Second Step Merger will constitute integrated steps in a single "plan of reorganization" within the meaning of Treas. Reg. §§1.368-2(g) and 1.368-3, which plan of reorganization the parties adopt by executing this Agreement.

WHEREAS, the Board of Directors of Nova (the "Nova Board") has unanimously (i) determined that the Merger is advisable and fair to, and in the best interests of, Nova and its stockholders, (ii) approved this Agreement and the other transactions contemplated by this Agreement, including the transactions contemplated by the Nova Voting Agreements (as defined below) (collectively, the "Transactions"), and (iii) determined, subject to the terms of this Agreement, to recommend that the stockholders of Nova approve this Agreement and the transactions contemplated hereby.

WHEREAS, the Board of Directors of Saturn (the "Saturn Board") has unanimously (i) determined that the Merger is in the best interests of Saturn and its stockholders, (ii) approved this Agreement and the other transactions contemplated by this Agreement, including the transactions contemplated by the Saturn Voting Agreements (as defined below), and (iii) determined, subject to the terms of this Agreement, to recommend that the stockholders of Saturn approve this Agreement and the transactions contemplated hereby.

WHEREAS, concurrently with the execution of this Agreement, as a condition and inducement to Saturn's willingness to enter into this Agreement, certain stockholders of Nova are entering into Voting Agreements in substantially the form attached hereto as Exhibit A (the "Nova Voting Agreements").

WHEREAS, concurrently with the execution of this Agreement, as a condition and inducement to Nova's willingness to enter into this Agreement, certain stockholders of Saturn are entering into Voting Agreements in substantially the form attached hereto as Exhibit B (the "Saturn Voting Agreements").

NOW, THEREFORE, in consideration of the covenants, promises and representations set forth herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

**ARTICLE I**  
**THE MERGER**

1.1 *The Integrated Merger.* At the Effective Time (as defined in Section 1.2) and subject to and upon the terms and conditions of this Agreement and the applicable provisions of the Delaware General Corporation Law ("Delaware Law"), Sub I shall be merged with and into Nova, the separate corporate

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existence of Sub I shall cease and Nova shall continue as the surviving corporation. The surviving corporation after the First Step Merger is hereinafter referred to as the “**Interim Surviving Corporation**.” As soon as practicable after the Effective Time, and subject to and upon the terms and conditions of this Agreement and the applicable provisions of The Delaware Limited Liability Company Act (the “**LLC Act**”) and Delaware Law, the Interim Surviving Corporation shall be merged with and into Sub II, the separate corporate existence of the Interim Surviving Corporation shall cease, and Sub II shall continue as the surviving entity and as a wholly-owned subsidiary of Saturn. The surviving entity after the Second Step Merger is hereinafter referred to as the “**Final Surviving Entity**.”

1.2 **Effective Time; Closing** Unless this Agreement is earlier terminated pursuant to Article VII hereof, the closing of the First Step Merger (the “**Closing**”) will take place as promptly as practicable after the execution and delivery hereof by the parties hereto, and following satisfaction or waiver of the conditions set forth in Article VI hereof, at the offices of Wilson Sonsini Goodrich & Rosati, Professional Corporation, 650 Page Mill Road, Palo Alto, California, unless another time or place is mutually agreed upon in writing by Saturn and Nova. The date upon which the Closing actually occurs shall be referred to herein as the “**Closing Date**.” On the Closing Date, the parties hereto shall cause the First Step Merger to be consummated by filing a Certificate of Merger with the Secretary of State of the State of Delaware (the “**First Step Certificate of Merger**”), in accordance with the applicable provisions of Delaware Law (the time of the acceptance of such filing by the Secretary of State of the State of Delaware or such later time as may be mutually agreed in writing by Nova and Saturn and specified in the First Step Certificate of Merger shall be referred to herein as the “**Effective Time**”). As soon as practicable after the Effective Time, Saturn shall cause the Second Step Merger to be consummated by filing a Certificate of Merger with the Secretary of State of the State of Delaware (the “**Second Step Certificate of Merger**,” and with the First Step Merger Certificate, the “**Certificates of Merger**”), in accordance with the applicable provisions of Delaware Law and the LLC Act (the time of the acceptance of such filing by the Secretary of State of the State of Delaware or such later time as may be mutually agreed in writing by Nova and Saturn and specified in the Second Step Certificate of Merger shall be referred to herein as the “**Second Step Merger Effective Time**”).

1.3 **Effect of the Merger** At the Effective Time, the effect of the First Step Merger shall be as provided in the applicable provisions of Delaware Law. Without limiting the generality of the foregoing, and subject thereto, at the Effective Time, except as otherwise agreed to pursuant to the terms of this Agreement, all of the property, rights, privileges, powers and franchises of Nova and Sub I shall vest in the Interim Surviving Corporation, and all debts, liabilities and duties of Nova and Sub I shall become the debts, liabilities and duties of the Interim Surviving Corporation. At the Second Step Merger Effective Time, the effect of the Second Step Merger shall be as provided in the applicable provisions of Delaware Law and the LLC Act. Without limiting the generality of the foregoing, and subject thereto, at the Second Step Merger Effective Time, except as otherwise agreed to pursuant to the terms of this Agreement, all of the property, rights, privileges, powers and franchises of the Interim Surviving Corporation and Sub II shall vest in the Final Surviving Entity, and all debts, liabilities and duties of the Interim Surviving Corporation and Sub II shall become the debts, liabilities and duties of the Final Surviving Entity.

1.4 **Organizational Documents**

(a) As of the Effective Time, by virtue of the First Step Merger and without any action on the part of Sub I or Nova, the Certificate of Incorporation of the Interim Surviving Corporation shall be amended and restated to read the same as the Certificate of Incorporation of Sub I, as in effect immediately prior to the Effective Time until thereafter amended in accordance with Delaware Law and such Certificate of Incorporation; *provided, however*, that as of the Effective Time the Certificate of Incorporation shall provide that the name of the Interim Surviving Corporation is “Nova, Inc.”

(b) As of the Effective Time, by virtue of the First Step Merger and without any action on the part of Sub I or Nova, the Bylaws of the Interim Surviving Corporation shall be amended and restated to read the same as the Bylaws of Sub I, as in effect immediately prior to the Effective Time until thereafter

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amended in accordance with Delaware Law, the Certificate of Incorporation of the Interim Surviving Corporation and such Bylaws; *provided, however,* that all references in such Bylaws to Sub I shall be amended to refer to "Nova, Inc."

(c) As of the Second Step Merger Effective Time, by virtue of the Second Step Merger and without any action on the part of Sub II or the Interim Surviving Corporation, the Certificate of Formation of Sub II as in effect immediately prior to the Second Step Merger Effective Time shall be the Certificate of Formation of the Final Surviving Entity until thereafter amended in accordance with the LLC Act and such certificate of formation; *provided, however,* that as of the Second Step Merger Effective Time, the certificate of formation shall provide that the name of the Final Surviving Entity is "Nova, LLC."

(d) As of the Second Step Merger Effective Time, by virtue of the Second Step Merger and without any action on the part of Sub II or the Interim Surviving Corporation, the Limited Liability Company Agreement of Sub II as in effect immediately prior to the Second Step Merger Effective Time shall be the Limited Liability Company Agreement of the Final Surviving Entity until thereafter amended in accordance with the LLC Act and such Limited Liability Company Agreement; *provided, however,* that as of the Second Step Merger Effective Time, the Limited Liability Agreement shall provide that the name of the Final Surviving Entity is "Nova, LLC."

#### 1.5 Directors/ Managers and Officers

(a) Directors/ Managers The initial directors of the Interim Surviving Corporation shall be the directors of Sub I as of immediately prior to the Effective Time, until their respective successors are duly elected or appointed and qualified. The initial directors of the Final Surviving Entity shall be the directors of Sub II as of immediately prior to the Second Step Merger Effective Time, until their respective successors are duly elected or appointed and qualified.

(b) Officers The initial officers of the Interim Surviving Corporation shall be the officers of Sub I as of immediately prior to the Effective Time. The initial officers of the Final Surviving Entity shall be the officers of Sub II as of immediately prior to the Second Step Merger Effective Time.

#### 1.6 Effect on Capital Stock

(a) Conversion of Nova Common Stock At the Effective Time, each share of Nova common stock, par value \$0.001 per share (the "Nova Common Stock"), issued and outstanding immediately prior to the Effective Time (other than any shares of Nova Common Stock to be canceled pursuant to Section 1.6(c) and any Dissenting Shares, as defined in Section 1.7), will be canceled and extinguished and automatically converted into the right to receive, upon surrender of the certificate(s) representing such Nova Common Stock in the manner provided in Section 1.8 (or in the case of a lost, stolen or destroyed certificate, upon delivery of an affidavit, and bond, if required, in the manner provided in Section 1.10),

(i) cash, without interest, in an amount equal to \$2.20 per share (the "Per Share Cash Portion," and the aggregate of the Per Share Cash Portion for all shares of Nova Common Stock, the "Cash Consideration"); and

(ii) 0.77 of a share (the "Per Share Stock Portion," and the aggregate of the Per Share Stock Portion for all shares of Nova Common Stock, the "Stock Consideration," and the Stock Consideration with the Cash Consideration, the "Merger Consideration") of a validly issued, fully paid and nonassessable share of Saturn common stock, par value \$0.001 per share (the "Saturn Common Stock").

(b) Notwithstanding anything to the contrary in this Agreement, if the condition to the obligations of each party to effect the Merger set forth in Section 6.1(e) (the "Tax Opinion Condition") is not satisfied because tax counsel to Saturn and Nova both reasonably determine that the First Step Merger and the Second Step Merger, taken together, may not satisfy the continuity of interest requirements under applicable U.S. federal income tax principles relating to "reorganizations" under Section 368(a) of the Code (the "Continuity of Interest Test"), then Saturn (after consultation with such counsel) shall reduce the Cash Consideration and correspondingly increase the Stock Consideration to the minimum extent

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necessary to enable the Tax Opinion Condition to be satisfied (it being understood that the aggregate increase in the value of the Stock Consideration as determined pursuant to this paragraph using the Threshold Price shall equal the aggregate reduction in the Cash Consideration) Solely for purposes of determining whether the Continuity of Interest Test has been satisfied, the value of a share of Saturn Common Stock shall be the average of the reported high and low sales prices of a share of Saturn Common Stock on the last trading day prior to the Closing Date, but the Cash Consideration shall be reduced to the minimum extent necessary to enable the Tax Opinion Condition to be satisfied using the Threshold Price (as defined below) for each additional share of Saturn Common Stock to be issued. The “**Threshold Price**” shall mean \$1.905.

(c) *Cancellation of Treasury and Saturn–Owned Shares*. All Nova Common Stock held by Nova or owned by Sub I, Sub II, Saturn or any direct or indirect wholly-owned subsidiary of Nova or of Saturn immediately prior to the Effective Time shall be canceled and extinguished without any conversion thereof

(d) *Capital Stock of Subs.*

(i) At the Effective Time, each share of common stock, par value \$0.001 per share, of Sub I (the “**Sub I Common Stock**”) issued and outstanding immediately prior to the Effective Time shall be converted into one validly issued, fully paid and nonassessable share of common stock, par value \$0.001 per share, of the Interim Surviving Corporation. Each certificate evidencing ownership of shares of Sub I Common Stock outstanding immediately prior to the Effective Time shall evidence ownership of such shares of capital stock of the Interim Surviving Corporation.

(ii) At the Second Step Merger Effective Time, each share of common stock of the Interim Surviving Corporation that is issued and outstanding immediately prior to the Second Step Merger Effective Time shall be cancelled and extinguished without any conversion thereof

(iii) At the Second Step Merger Effective Time, each membership interest of Sub II issued and outstanding immediately prior to the Second Step Merger Effective Time shall be converted into and exchanged for the applicable corresponding interest of the Final Surviving Entity. Each membership interest certificate of Sub II, if any, evidencing ownership of any such interest shall continue to evidence the applicable corresponding interest in the Final Surviving Entity.

(e) *Stock Options*. At the Effective Time, by virtue of the Merger and without any action on the part of any holder of outstanding options to purchase Nova Common Stock (each a “**Nova Option**”) pursuant to the Nova 2001 Nonstatutory Stock Option Plan, the Nova 2000 Stock Plan, the Nova 1998 Stock Plan and the Nova 1994 Flexible Stock Incentive Plan (collectively the “**Nova Stock Plans**”):

(i) Subject to the approval of Saturn’s stockholders at the Saturn Stockholders’ Meeting (as defined in Section 5.2(b)) in accordance with Saturn’s Bylaws, each Nova Option (other than those granted under the Nova ESPP (as defined below)), whether vested or unvested, that is outstanding immediately prior to the Effective Time (A) under the Nova Stock Plans other than the Nova 1994 Flexible Stock Incentive Plan and has an exercise price per share of Nova Common Stock of \$10.00 or less, and (B) under the Nova 1994 Flexible Stock Incentive Plan regardless of the exercise price (each, an “**Assumed Nova Option**”), will be assumed by Saturn and such Assumed Nova Option shall become an option to acquire shares of Saturn Common Stock, on the same terms and conditions as were applicable to such Assumed Nova Option immediately prior to the Effective Time, except that (1) such Assumed Nova Option shall be exercisable for that number of whole shares of Saturn Common Stock equal to the product (rounded down to the nearest whole number of shares of Saturn Common Stock) obtained by multiplying the number of shares of Nova Common Stock issuable upon the exercise of such Assumed Nova Option immediately prior to the Effective Time by the Option Exchange Ratio (as defined herein), and (2) the per share exercise price for the shares of Saturn Common Stock issuable upon exercise of such Assumed Nova Option shall be equal to the quotient (rounded up to the nearest whole cent) obtained by dividing the exercise price per share of Nova Common Stock for which the Assumed Nova Option was exercisable immediately prior to the Effective Time by the Option Exchange Ratio. The “**Option Exchange Ratio**” shall mean the sum of

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the Per Share Stock Portion and the quotient of (a) the Per Share Cash Portion divided by (b) the average of the closing trading prices of Saturn Common Stock as reported on the Nasdaq National Market (“Nasdaq”) during the five (5) trading days immediately preceding the date of the Closing (it being understood that the Per Share Cash Portion and the Per Share Stock Portion as may be modified by Section 1.6(b) shall be used in calculating the Option Exchange Ratio)

(ii) In the event Saturn stockholder approval is not obtained for the Option Assumption (as defined in Section 5.2(b)), each Assumed Nova Option will be assumed by Saturn and such Assumed Nova Option shall become an option to acquire shares of Saturn Common Stock and cash, on the same terms and conditions as were applicable to such Assumed Nova Option immediately prior to the Effective Time, except that (1) such Assumed Nova Option shall be exercisable for (A) that number of whole shares of Saturn Common Stock equal to the product (rounded down to the nearest whole number of shares of Saturn Common Stock) obtained by multiplying the number of shares of Nova Common Stock issuable upon the exercise of such Assumed Nova Option immediately prior to the Effective Time by the Per Share Stock Portion (as adjusted pursuant to Section 1.6(b)), and (B) that amount of cash (rounded up to the nearest whole cent) obtained by multiplying the number of shares of Nova Common Stock issuable upon the exercise of such Nova Option immediately prior to the Effective Time by the Per Share Cash Portion (as adjusted pursuant to Section 1.6(b)), and (2) the per share exercise price for the shares of Saturn Common Stock and cash issuable upon exercise of such Assumed Nova Option shall be equal to the quotient (rounded up to the nearest whole cent) obtained by dividing the exercise price per share of Nova Common Stock for which the Assumed Nova Option was exercisable immediately prior to the Effective Time by the Per Share Stock Portion.

(iii) As promptly as practicable after the Closing Date (but in any event, within 30 days following the Closing Date), Saturn shall issue to each holder of an Assumed Nova Option a document evidencing the foregoing assumption of such Assumed Nova Option, which form of assumption notice shall be subject to the reasonable review and approval of Nova.

(iv) Each Nova Option (other than those granted under the Nova ESPP), whether vested or unvested, that is outstanding immediately prior to the Effective Time with an exercise price per share of Nova Common Stock of more than \$10.00 (each a “Terminated Nova Option”) shall be fully vested prior to the Effective Time and shall terminate as of the Effective Time. Nova shall take all reasonable actions (but not including the payment of cash or non-cash consideration without Saturn’s consent) necessary to cause the termination of all outstanding Terminated Nova Options that remain unexercised prior to the Effective Time so that all Terminated Nova Options terminate at or prior to the Effective Time.

(v) Nova shall cause the termination, effective immediately prior to the Effective Time, of all Nova Stock Plans.

(f) Employee Stock Purchase Plan. Nova shall take all actions necessary pursuant to the terms of the Nova 2000 Employee Stock Purchase Plan (the “Nova ESPP”) in order to shorten each currently ongoing purchase and/or offering period under the Nova ESPP which extends beyond the Effective Time (the “Current Offerings”) such that (i) a new purchase date for each such Current Offering shall occur prior to the Effective Time, (ii) Nova Common Stock shall be purchased by the Nova ESPP participants in connection with such new purchase date prior to the Effective Time and (iii) all administrative actions required to transfer ownership of Nova Common Stock to such purchasing Nova ESPP participants shall have been completed. The Nova ESPP shall terminate immediately prior to the earlier of (i) the Effective Time, or (ii) the date upon which the Nova ESPP terminates by its terms. Subsequent to the date of this Agreement, Nova shall take no action, pursuant to the terms of the Nova ESPP, to commence any new purchase and/or offering period. Prior to the date of the termination of the Nova ESPP, Nova shall provide Saturn with evidence that the Nova ESPP will be terminated pursuant to duly adopted resolutions of the Nova Board (it being understood that Saturn shall be provided a form of such resolutions a reasonable time prior to adoption).

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(g) Unvested Shares. If any shares of Nova Common Stock outstanding immediately prior to the Effective Time are unvested or are subject to a repurchase option, risk of forfeiture or other condition under any applicable restricted stock purchase agreement or other agreement with Nova ("Unvested Shares"), then the Stock Consideration issued in exchange for such Unvested Shares shall also be unvested and subject to the same repurchase option, risk of forfeiture or other condition. The Cash Consideration payable upon conversion of any Unvested Share shall initially be withheld and shall be paid to each such holder in accordance with the vesting and other provisions set forth in the applicable restricted stock purchase agreement.

1.7 Dissenting Shares

(a) Notwithstanding any provision of this Agreement to the contrary, shares of Nova Common Stock that are outstanding immediately prior to the Effective Time and that are held by stockholders who shall have not voted in favor of the Merger and who shall have demanded properly in writing appraisal for such shares of Nova Common Stock in accordance with Section 262 of Delaware Law (collectively, the "Dissenting Shares") shall not be converted into, or represent the right to receive, the portion of the Merger Consideration payable for such shares of Nova Common Stock. Such stockholders shall be entitled to receive payment of the appraised value of such shares of Nova Common Stock held by them in accordance with the provisions of such Section 262, except that all Dissenting Shares held by stockholders who shall have failed to perfect or who effectively shall have withdrawn or lost their rights to appraisal of such shares of Nova Common Stock under such Section 262 shall thereupon be deemed to have been converted into, and to have become exchangeable for, as of the Effective Time, the right to receive the portion of the Merger Consideration payable for such shares of Nova Common Stock, without any interest thereon, upon surrender, in the manner provided in Section 1.8, of the certificate or certificates that formerly evidenced such shares of Nova Common Stock (or in the case of a lost, stolen or destroyed certificate, upon delivery of an affidavit, and bond, if required, in the manner provided in Section 1.10).

(b) Nova shall give Saturn (i) prompt notice of any demands for appraisal received by Nova, withdrawals of such demands, and any other instruments served pursuant to Delaware Law and received by Nova and (ii) the opportunity to direct all negotiations and proceedings with respect to demands for appraisal under Delaware Law. Nova shall not, except with the prior written consent of Saturn (which consent shall not be unreasonably withheld or delayed), or except as may be required by Delaware Law, make any payment with respect to any demands for appraisal or offer to settle or settle any such demands.

1.8 Surrender of Certificates

(a) Paying Agent. Prior to the Effective Time, Saturn shall select a bank or trust company reasonably acceptable to Nova to act as agent (the "Paying Agent") for the holders of Nova Common Stock to receive the cash and shares of Saturn Common Stock to which holders of Nova Common Stock shall become entitled pursuant to this Article I. As of the Effective Time, Saturn shall deposit with the Paying Agent the cash and shares of Saturn Common Stock to which such holders shall become entitled pursuant to this Article I. Any cash deposited with the Paying Agent shall be invested by the Paying Agent as directed by Saturn; *provided*, that no such investment or loss thereon shall affect the amounts payable to holders of Nova Common Stock pursuant to this Article I.

(b) Payment Procedures. As promptly as practicable after the Effective Time, Saturn shall cause the Paying Agent to mail to each holder of record (as of the Effective Time) of a certificate or certificates (the "Certificates"), which immediately prior to the Effective Time represented the outstanding shares of Nova Common Stock converted into the right to receive the portion of the Merger Consideration payable for such shares of Nova Common Stock, (i) a letter of transmittal in customary form (which (x) shall specify that delivery shall be effected, and risk of loss and title to the Certificates shall pass, only upon delivery of the Certificates to the Paying Agent, (y) shall contain such other provisions as Saturn may reasonably specify and (z) shall be subject to the review and reasonable approval of Nova prior to the Effective Time) and (ii) instructions for use in effecting the surrender of the Certificates in exchange for the portion of the Merger Consideration payable upon surrender of said Certificates. Upon surrender of Certificates for cancellation to the Paying Agent or to such other agent or agents as may be appointed by

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Saturn, together with such letter of transmittal, duly completed and validly executed in accordance with the instructions thereto, the holders of such Certificates formerly representing Nova Common Stock shall be entitled to receive in exchange therefor the portion of the Merger Consideration payable for such shares of Nova Common Stock, and the Certificates so surrendered shall forthwith be canceled. Until so surrendered, outstanding Certificates shall be deemed from and after the Effective Time, for all corporate purposes, to evidence only the ownership of the respective portion of the Merger Consideration to which such person is entitled by virtue thereof. As promptly as practicable following surrender of any such Certificates, the Paying Agent shall deliver to the record holders thereof, without interest, the portion of the Merger Consideration to which such holder is entitled upon surrender of said Certificates.

(c) *Payments with respect to Unsurrendered Nova Common Stock: No Liability*. At any time following the 180th day after the Effective Time, the Final Surviving Entity shall be entitled to require the Paying Agent to deliver to it any funds or shares of Saturn Common Stock which had been made available to the Paying Agent and not disbursed to holders of Nova Common Stock (including all interest and other income received by the Paying Agent in respect of all funds made available to it), and, thereafter, such holders shall be entitled to look to the Final Surviving Entity (subject to abandoned property, escheat and other similar laws) only as general creditors thereof with respect to any portion of the Merger Consideration that may be payable upon due surrender of the Certificates held by them. Notwithstanding the foregoing, none of Saturn, the Final Surviving Entity nor the Paying Agent shall be liable to any former holder of Nova Common Stock for any portion of the Merger Consideration delivered in respect of such Nova Common Stock to a public official pursuant to any abandoned property, escheat or other similar law.

(d) *Transfers of Ownership*. If the payment of the portion of the Merger Consideration to which such holder is entitled is to be paid to a person other than the person in whose name the Certificates surrendered in exchange therefor are registered, it will be a condition of payment that the Certificates so surrendered be properly endorsed and otherwise in proper form for transfer (including, if requested by Saturn or the Paying Agent, a medallion guarantee), and that the persons requesting such payment will have paid to Saturn or any agent designated by it any transfer or other taxes required by reason of the payment of a portion of the Merger Consideration to a person other than the registered holder of the Certificates surrendered, or established to the satisfaction of Saturn or any agent designated by it that such tax has been paid or is not applicable.

(e) *Required Withholding*. Each of the Paying Agent, Saturn and the Final Surviving Entity shall be entitled to deduct and withhold from any consideration payable or otherwise deliverable pursuant to this Agreement to any holder or former holder of Nova Common Stock such amounts as may be required to be deducted or withheld therefrom under the Code or under any provision of state, local or foreign Tax law or under any other applicable legal requirement. To the extent such amounts are so deducted or withheld, such amounts shall be treated for all purposes under this Agreement as having been paid to the person to whom such amounts would otherwise have been paid.

1.9 *No Further Ownership Rights in Nova Common Stock*. Payment of the Merger Consideration shall be deemed to have been paid in full satisfaction of all rights pertaining to Nova Common Stock, and there shall be no further registration of transfers on the records of the Final Surviving Entity of Nova Common Stock which were outstanding immediately prior to the Effective Time. If, after the Effective Time, Certificates are presented to the Final Surviving Entity for any reason, they shall be canceled and exchanged as provided in this Article I.

1.10 *Lost, Stolen or Destroyed Certificates*. In the event that any Certificates shall have been lost, stolen or destroyed, the Paying Agent shall pay in exchange for such lost, stolen or destroyed Certificates, upon the making of an affidavit of that fact by the holder thereof, the portion of the Merger Consideration payable with respect thereto; *provided, however*, that Saturn or the Paying Agent may, in its discretion and as a condition precedent to the payment of such portion of the Merger Consideration, require the owner of such lost, stolen or destroyed Certificates to deliver a bond in such reasonable and customary amount as it

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may direct as indemnity against any claim that may be made against Saturn, the Final Surviving Entity or the Paying Agent with respect to the Certificates alleged to have been lost, stolen or destroyed.

1.11 Adjustments In the event of any stock split, reverse stock split, stock dividend (including any dividend or distribution of securities convertible into Nova Common Stock, whether directly or indirectly), reorganization, reclassification, combination, recapitalization or other like change with respect to Nova Common Stock or Saturn Common Stock occurring after the date of this Agreement and prior to the Effective Time, all references in this Agreement to specified numbers of shares of any class or series affected thereby, and all calculations provided for that are based upon numbers of shares of any class or series (or trading prices therefor) affected thereby, shall be equitably adjusted to the extent necessary to provide the parties the same economic effect as contemplated by this Agreement prior to such stock split, reverse stock split, stock dividend, reorganization, reclassification, combination, recapitalization or other like change.

1.12 Fractional Shares No fraction of a share of Saturn Common Stock will be issued by virtue of the Merger, but in lieu thereof each holder of shares of Nova Common Stock who would otherwise be entitled to a fraction of a share of Saturn Common Stock shall, upon surrender of such holder's Certificates, receive from Saturn an amount of cash (rounded to the nearest whole cent), without interest, equal to the product of: (i) such fraction, multiplied by (ii) \$4.46.

1.13 Tax Effect The Integrated Merger is intended to constitute a "reorganization" within the meaning of Section 368(a) of the Code. Saturn and Nova intend that the First Step Merger and the Second Step Merger will constitute integrated steps in a single "plan of reorganization" within the meaning of Treas. Reg. §1.368-2(g) and 1.368-3, which plan of reorganization the parties adopt by executing this Agreement. None of the parties hereto will take any action that would be reasonably expected to cause the Integrated Merger to fail to qualify as a "reorganization" within the meaning of Section 368(a) of the Code.

1.14 Taking of Necessary Action; Further Action If, at any time after the Effective Time, any further action is necessary or desirable to carry out the purposes of this Agreement and to vest the Final Surviving Entity with full right, title and possession to all assets, property, rights, privileges, powers and franchises of Nova and the Subs, the officers and directors of Nova and the Subs will take all such lawful and necessary action.

## ARTICLE II

## REPRESENTATIONS AND WARRANTIES OF NOVA

Nova hereby represents and warrants to Saturn and the Subs, subject only to such exceptions as are specifically disclosed in writing in the disclosure schedule supplied by Nova to Saturn (which such exceptions shall reference the specific section and, if applicable, subsection number of this Article II to which it applies, and any information disclosed in any such section or subsection shall be deemed to be disclosed only for purposes of such section or subsection, except to the extent it is reasonably apparent that the disclosure contained in such section or subsection contains enough information regarding the subject matter of other representations and warranties contained in this Article II so as to qualify or otherwise apply to such other representations and warranties), dated as of the date hereof and certified by a duly authorized officer of Nova (the "Nova Disclosure Letter"), as follows:

2.1 Organization; Standing and Power; Charter Documents; Subsidiaries.

(a) Organization; Standing and Power. Nova and each of its Subsidiaries (as defined below) (i) is a corporation or other organization duly organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation or organization, (ii) has the requisite power and authority to own, lease and operate its properties and to carry on its business as now being conducted, and (iii) is duly qualified or licensed and in good standing to do business in each jurisdiction in which the nature of its business or the ownership or leasing of its properties makes such qualification or licensing necessary, other than in

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such jurisdictions where the failure to so qualify or to be in good standing, individually or in the aggregate, would not reasonably be expected to have a Material Adverse Change to Nova. For purposes of this Agreement, “Subsidiary,” when used with respect to any party, shall mean any corporation or other organization, whether incorporated or unincorporated, at least a majority of the securities or other interests of which having by their terms ordinary voting power to elect a majority of the Board of Directors or others performing similar functions with respect to such corporation or other organization is directly or indirectly owned or controlled by such party or by any one or more of its Subsidiaries, or by such party and one or more of its Subsidiaries.

(b) *Charter Documents*. Nova has delivered or made available to Saturn: (i) a true and correct copy of the Certificate of Incorporation (including any Certificate of Designations) and Bylaws of Nova, each as amended to date (collectively, the “Nova Charter Documents”) and (ii) the certificate of incorporation and bylaws, or like organizational documents (collectively, “Subsidiary Charter Documents”), of each of its “Significant Subsidiaries” (as defined Rule 102 of Regulation S-X of the SEC), and each such instrument is in full force and effect. Nova is not in violation of any of the provisions of the Nova Charter Documents and each Significant Subsidiary of Nova is not in violation of its respective Subsidiary Charter Documents.

(c) *Subsidiaries*. Nova’s Form 10-K filed with the SEC on March 16, 2005 for the fiscal year ended December 31, 2004 includes all the Subsidiaries of Nova which are Significant Subsidiaries. All the outstanding shares of capital stock of, or other equity or voting interests in, each such Significant Subsidiary have been validly issued and are fully paid and nonassessable and are owned by Nova, a wholly-owned Subsidiary of Nova, or Nova and another wholly-owned Subsidiary of Nova, free and clear of all pledges, claims, liens, charges, encumbrances, options and security interests of any kind or nature whatsoever, but excluding any licenses (collectively, “Liens”), including any restriction on the right to vote, sell or otherwise dispose of such capital stock or other ownership interests, except for restrictions imposed by applicable securities laws, except as would not reasonably be expected to have a Material Adverse Change to Nova. Other than the Subsidiaries of Nova, neither Nova nor any of its Subsidiaries owns any capital stock of, or other equity or voting interests of any nature in, or any interest convertible, exchangeable or exercisable for, capital stock of, or other equity or voting interests of any nature in, any other person. No assets or liabilities that are material, individually or in the aggregate, to Nova are held by any Subsidiary of Nova that is not a Significant Subsidiary.

## 2.2 Capital Structure.

(a) *Capital Stock*. The authorized capital stock of Nova consists of: (i) 250,000,000 shares of Nova Common Stock, par value \$0.001 per share and (ii) 5,000,000 shares of preferred stock, par value \$0.001 per share (the “Nova Preferred Stock”), of which 250,000 shares have been designated as Series A Preferred Stock, all of which will be reserved for issuance upon exercise of preferred stock purchase rights (the “Nova Rights”) issuable pursuant to the Rights Agreement dated as of December 10, 2002 by and between Nova and Mellon Investor Services LLC (the “Nova Rights Agreement”), a true and complete copy of which is filed as Exhibit 4.7 to Nova’s Current Report on Form 8-K filed with the Securities and Exchange Commission (the “SEC”) on December 13, 2002. At the close of business on April 30, 2005: (i) 36,175,069 shares of Nova Common Stock were issued and outstanding, excluding shares of Nova Common Stock held by Nova in its treasury and 228,752 shares issued after April 30, 2005 pursuant to the ESPP, (ii) 1,082,372 shares of Nova Common Stock were issued and held by Nova in its treasury, and (iii) no shares of Nova Preferred Stock were issued and outstanding. No shares of Nova Common Stock are owned or held by any Subsidiary of Nova. All of the outstanding shares of capital stock of Nova are, and all shares of capital stock of Nova which may be issued as contemplated or permitted by this Agreement will be, when issued, duly authorized and validly issued, fully paid and nonassessable and not subject to any preemptive rights. Section 2.2(a) of the Nova Disclosure Letter sets forth a list of each holder of Unvested Shares and (a) the name of the holder of such Unvested Shares, (b) the number of Unvested Shares held by such holder, (c) the repurchase price of such Unvested Shares, (d) the date on which such Unvested Shares was purchased or granted, (e) the applicable vesting schedule pursuant to which Nova’s right of repurchase or forfeiture lapses, and (f) the extent to which

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such Nova right of repurchase or forfeiture has lapsed as of the date hereof. Upon consummation of the Merger, (A) the shares of Saturn Common Stock issued in exchange for any Unvested Shares will, without any further act of Saturn, the Subs, Nova or any other person, become subject to the restrictions, conditions and other provisions contained in the contract relating to such Unvested Shares and (B) Saturn will automatically succeed to and become entitled to exercise Nova's rights and remedies under any such contract without modification. There are no commitments or agreements of any character to which Nova is bound obligating Nova to waive (in whole or in part) its right of repurchase or forfeiture with respect to any Unvested Shares as a result of the Merger (whether alone or upon the occurrence of any additional or subsequent events).

(b) Stock Options. As of the close of business on April 30, 2005: (i) 10,034,188 shares of Nova Common Stock were subject to issuance pursuant to outstanding Nova Options under the Nova Stock Plans, (ii) 3,104,507 shares of Nova Common Stock were reserved for future issuance under the Nova Stock Plans, and (iii) 466,805 shares of Nova Common Stock were reserved for future issuance under the Nova ESPP. Section 2.2(b) of the Nova Disclosure Letter sets forth a list of each outstanding Nova Option issued other than pursuant to the Nova ESPP, and (a) the particular Nova Stock Plan (if any) pursuant to which such Nova Option was granted, (b) the name of the holder of such Nova Option, (c) the number of shares of Nova Common Stock subject to such Nova Option, (d) the exercise price of such Nova Option, (e) the date on which such Nova Option was granted, (f) the applicable vesting schedule, and the extent to which such Nova Option was vested and exercisable as of April 30, 2005, and (g) the date on which such Nova Option expires. All shares of Nova Common Stock subject to issuance under the Nova Stock Plans and the Nova ESPP, upon issuance in accordance with the terms and conditions specified in the instruments pursuant to which they are issuable, would be duly authorized, validly issued, fully paid and nonassessable. Except as set forth on Section 2.2(b) of the Nova Disclosure Letter, there are no commitments or agreements of any character to which Nova is bound obligating Nova to accelerate the vesting of any Nova Option or Unvested Shares as a result of the Merger (whether alone or upon the occurrence of any additional or subsequent events). There are no outstanding or authorized stock appreciation, phantom stock, profit participation or other similar outstanding or authorized equity compensation rights with respect to Nova. The treatment of Nova Options in accordance with this Agreement is permitted under the terms of the Nova Stock Plans and does not require the consent of the holders thereof.

(c) Voting Debt. No bonds, debentures, notes or other indebtedness of Nova or any of its Subsidiaries (i) having the right to vote on any matters on which stockholders may vote (or which is convertible into, or exchangeable for, securities having such right) or (ii) the value of which is any way based upon or derived from capital or voting stock of Nova, is issued or outstanding as of the date hereof (collectively, "Voting Debt").

(d) Other Securities. Except as otherwise set forth in Section 2.2(d) of the Nova Disclosure Letter, as of the date hereof, there are no securities, options, warrants, calls, rights, contracts, commitments, agreements, instruments, arrangements, understandings, obligations or undertakings of any kind to which Nova or any of its Subsidiaries is a party or by which any of them is bound obligating Nova or any of its Subsidiaries to (including on a deferred basis) issue, deliver or sell, or cause to be issued, delivered or sold, additional shares of capital stock, Voting Debt or other voting securities of Nova or any of its Subsidiaries, or obligating Nova or any of its Subsidiaries to issue, grant, extend or enter into any such security, option, warrant, call, right, contract, commitment, agreement, instrument, arrangement, understanding, obligation or undertaking. All outstanding shares of Nova Common Stock, all outstanding Nova Options, and all outstanding shares of capital stock of each Subsidiary of Nova have been issued and granted in compliance in all material respects with (i) all applicable securities laws and all other applicable Legal Requirements (as defined below) and (ii) all requirements set forth in applicable material Contracts (as defined below). Except for Unvested Shares, there are not any outstanding Contracts of Nova or any of its Subsidiaries to (i) repurchase, redeem or otherwise acquire any shares of capital stock of, or other equity or voting interests in, Nova or any of its Subsidiaries or (ii) dispose of any shares of the capital stock of, or other equity or voting interests in, any of its Subsidiaries. Nova is not a

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party to any voting agreement with respect to shares of the capital stock of, or other equity or voting interests in, Nova or any of its Subsidiaries and, to the knowledge of Nova, other than the Nova Voting Agreements and the irrevocable proxies granted pursuant to the Nova Voting Agreements, there are no irrevocable proxies and no voting agreements, voting trusts, rights plans, anti-takeover plans or registration rights agreements with respect to any shares of the capital stock of, or other equity or voting interests in, Nova or any of its Subsidiaries. For purposes of this Agreement, “**Contract**” shall mean any written, oral or other agreement, contract, subcontract, settlement agreement, lease, binding understanding, instrument, note, option, warranty, purchase order, license, sublicense, insurance policy, benefit plan or legally binding commitment or undertaking of any nature, as in effect as of the date hereof or as may hereinafter be in effect. For purposes of this Agreement, “**Legal Requirements**” shall mean any federal, state, local, municipal, foreign or other law, statute, constitution, principle of common law, resolution, ordinance, code, order, edict, decree, rule, regulation, ruling or requirement issued, enacted, adopted, promulgated, implemented or otherwise put into effect by or under the authority of any Governmental Entity (as defined in Section 2.3(c)).

**2.3 Authority; Non-Contravention; Necessary Consents**

(a) Authority. Nova has all requisite corporate power and authority to enter into this Agreement and to consummate the transactions contemplated hereby. The execution and delivery of this Agreement and the consummation of the transactions contemplated hereby have been duly authorized by all necessary corporate action on the part of Nova and no other corporate proceedings on the part of Nova are necessary to authorize the execution and delivery of this Agreement or to consummate the Merger and the other transactions contemplated hereby, subject only to the necessary approval and adoption of this Agreement and the transactions contemplated hereby by Nova’s stockholders and the filing of the Certificates of Merger pursuant to Delaware Law. The affirmative vote of the holders of a majority of the outstanding shares of Nova Common Stock is the only vote of the holders of any class or series of Nova capital stock necessary to approve and adopt such matters. This Agreement has been duly executed and delivered by Nova and, assuming due execution and delivery by Saturn and the Subs, constitutes the valid and binding obligation of Nova, enforceable against Nova in accordance with its terms.

(b) Non-Contravention. The execution and delivery of this Agreement by Nova does not, and the performance of this Agreement by Nova and the consummation of the Merger and the transactions contemplated hereby will not: (i) conflict with or violate the Nova Charter Documents or any Subsidiary Charter Documents of any Subsidiary of Nova, (ii) subject to obtaining the approval and adoption of this Agreement and the approval of the Merger by Nova’s stockholders as contemplated in Section 5.2(a) and compliance with the requirements set forth in Section 2.3(c), conflict with or violate any applicable Legal Requirement in any material respect applicable to Nova or any of its Subsidiaries or by which Nova or any of its Subsidiaries or any of their respective properties is bound or affected, or (iii) result in any breach of or constitute a default (or an event that with notice or lapse of time or both would become a default) under, or impair Nova’s rights or alter the rights or obligations of any third party under, or give to others any rights of termination, amendment, acceleration or cancellation of, or result in the creation of a Lien on any of the properties or assets of Nova or any of its Subsidiaries pursuant to, any Nova Material Contract (as defined in Section 2.16) (other than Nova IP Agreements (as defined in Section 2.8(e))), except, in the case of clause (iii) of this sentence, as would not reasonably be expected to have a material adverse effect on Nova. Section 2.3(b) of the Nova Disclosure Letter lists all consents, waivers and approvals under any Nova Material Contracts required to be obtained in connection with the consummation of the transactions contemplated hereby, which, if individually or in the aggregate, are not obtained, would result in a material loss of benefits to Nova, Saturn or the Final Surviving Entity as a result of the Merger.

(c) Necessary Consents. No consent, approval, order or authorization of, or registration, declaration or filing with any supranational, national, state, municipal, local or foreign government, any instrumentality, subdivision, court, administrative agency or commission or other governmental authority or instrumentality, or any quasi-governmental or private body exercising any regulatory, taxing, importing or other governmental or quasi-governmental authority (a “**Governmental Entity**”) is required to be obtained or

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made by Nova in connection with the execution and delivery of this Agreement or the consummation of the Merger and other transactions contemplated hereby, except for: (i) the filing of the Certificates of Merger with the Secretary of State of the State of Delaware and appropriate documents with the relevant authorities of other states in which Nova and/or Saturn are qualified to do business, (ii) the filing of the Prospectus/ Proxy Statement (as defined in Section 2.17) with the SEC in accordance with the Securities Exchange Act of 1934, as amended (the “**Exchange Act**”) and the effectiveness of the Registration Statement (as defined in Section 2.17), (iii) such consents, approvals, orders, authorizations, registrations, declarations and filings as may be required under the Hart–Scott–Rodino Antitrust Improvements Act of 1976, as amended (the “**HSR Act**”) and any foreign antitrust laws, (iv) such consents, approvals, orders, authorizations, registrations, declarations and filings as may be required under applicable federal, foreign and state securities (or related) laws, and (v) such other consents, authorizations, filings, approvals and registrations which if not obtained or made would not materially adversely affect Nova or Saturn or the ability of the parties hereto to consummate the Merger within the time frame in which the Merger would otherwise be consummated in the absence of the need for such consent, approval, order, authorization, registration, declaration or filings. The consents, approvals, orders, authorizations, registrations, declarations and filings set forth in (i) through (iv) are referred to herein as the “**Necessary Consents**.”

**2.4 SEC Filings; Financial Statements**

(a) **SEC Filings**. Nova has filed all required registration statements, prospectuses, reports, schedules, forms, statements and other documents (including exhibits and all other information incorporated by reference) required to be filed by it with the SEC since January 1, 2002. Nova has made available to Saturn all such registration statements, prospectuses, reports, schedules, forms, statements and other documents in the form filed with the SEC. All such required registration statements, prospectuses, reports, schedules, forms, statements and other documents (including those that Nova may file subsequent to the date hereof) are referred to herein as the “**Nova SEC Reports**.” As of their respective dates, the Nova SEC Reports (i) were prepared in accordance and complied in all material respects with the requirements of the Securities Act of 1933, as amended (the “**Securities Act**”), or the Exchange Act, as the case may be, and the rules and regulations of the SEC thereunder applicable to such Nova SEC Reports and (ii) did not at the time they were filed (or if amended or superseded by a filing prior to the date of this Agreement then on the date of such filing) contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. None of Nova’s Subsidiaries is required to file any forms, reports or other documents with the SEC.

(b) **Financial Statements**. Each of the consolidated financial statements (including, in each case, any related notes thereto) contained in the Nova SEC Reports (the “**Nova Financials**”), including each Nova SEC Report filed after the date hereof until the Closing: (i) complied as to form in all material respects with the published rules and regulations of the SEC with respect thereto, (ii) was prepared in accordance with United States generally accepted accounting principles (“**GAAP**”) applied on a consistent basis throughout the periods involved (except as may be indicated in the notes thereto or, in the case of unaudited interim financial statements, as may be permitted by the SEC on Form 10–Q, 8–K or any successor form under the Exchange Act), and (iii) fairly presented in all material respects the consolidated financial position of Nova and its consolidated Subsidiaries as of the respective dates thereof and the consolidated results of the Nova operations and cash flows for the periods indicated. The balance sheet of Nova contained in the Nova SEC Reports as of December 31, 2004 is hereinafter referred to as the “**Nova Balance Sheet**.” As of April 30, 2005, Nova’s consolidated cash, cash equivalents and restricted cash (calculated in accordance with the accounting policies described in Nova’s Form 10–K filed with the SEC on March 16, 2005 for the fiscal year ended December 31, 2004) were as set forth on Section 2.4(b) of the Nova Disclosure Letter.

**2.5 No Undisclosed Liabilities**. Except as otherwise set forth in Section 2.5 of the Nova Disclosure Letter, neither Nova nor its Subsidiaries has any liability, indebtedness, obligation, expense, claim, deficiency, guaranty or endorsement of any type, whether accrued, absolute, contingent, matured, unmatured or other (whether or not required to be reflected in the Nova Financials), which individually or

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in the aggregate (i) has not been reflected in the Nova Balance Sheet or the footnotes related thereto, (ii) has not arisen in the ordinary course of business consistent with past practices since the Nova Balance Sheet, (iii) (a) arose before the date of the Nova Balance Sheet, (b) arose in the ordinary course of business consistent with past practices, (c) were not required by GAAP to be on the Nova Balance Sheet, and (d) were not material to Nova in amount, individually or in the aggregate, or (iv) arose before the date of the Nova Balance Sheet pursuant to the express terms of Nova Material Contracts and were not required by GAAP to be on the Nova Balance Sheet.

**2.6 *Absence of Certain Changes or Events.*** Since the date of the Nova Balance Sheet through the date hereof, except as set forth on Section 2.6 of the Nova Disclosure Letter, each of Nova and its Subsidiaries has conducted its respective business only in the ordinary course of business consistent with past practice and there has not been: (i) any Material Adverse Change to Nova, (ii) any declaration, setting aside or payment of any dividend on, or other distribution (whether in cash, stock or property) in respect of, any of Nova's or any of its Subsidiaries' capital stock, or any purchase, redemption or other acquisition by Nova or any of its Subsidiaries of any of Nova's capital stock or any other securities of Nova or its Subsidiaries or any options, warrants, calls or rights to acquire any such shares or other securities except for repurchases from Nova Employees (as defined in Section 2.13(a)) following their termination pursuant to the terms of their pre-existing stock option or purchase agreements, (iii) any split, combination or reclassification of any of Nova's or any of its Subsidiaries' capital stock, (iv) with respect to any individual, any granting by Nova or any of its Subsidiaries of any material increase in compensation or fringe benefits, except for normal increases of cash compensation in the ordinary course of business consistent with past practice (other than to members of the Nova Board or executive officers of Nova), or any payment by Nova or any of its Subsidiaries of any bonus, except for bonuses made in the ordinary course of business consistent with past practice (other than to members of the Nova Board or executive officers of Nova), or any granting by Nova or any of its Subsidiaries of any material increase in severance or termination pay or any entry by Nova or any of its Subsidiaries into, or material modification or amendment of, any currently effective employment, severance, termination or indemnification agreement or any agreement the benefits of which are contingent or the terms of which are materially altered upon the occurrence of a transaction involving Nova of the nature contemplated hereby, (v) entry by Nova or any of its Subsidiaries into any licensing or other agreement with regard to the acquisition or disposition of any material Intellectual Property (as defined in Section 2.8(j)) other than licenses, distribution agreements, advertising agreements, sponsorship agreements or merchant program agreements entered into in the ordinary course of business consistent with past practice, (vi) any material change by Nova in its accounting methods, principles or practices, except as required by concurrent changes in GAAP or by the SEC, (vii) any material revaluation by Nova of any of its assets, including, without limitation, writing down the value of capitalized inventory or writing off notes or accounts receivable other than in the ordinary course of business consistent with past practice, (viii) any communication from Nasdaq with respect to the delisting of the Nova Common Stock, (ix) any cancellation by Nova or any of its Subsidiaries of any debts or waiver of any claims or rights of material value, (x) any sale, transfer or other disposition outside of the ordinary course of business of any properties or assets (real, personal or mixed, tangible or intangible) by Nova or any of its Subsidiaries, or (xi) any agreement, whether in writing or otherwise, to take any action described in this section by Nova or any of its Subsidiaries.

**2.7 *Taxes***

(a) **Definition.** For the purposes of this Agreement, the term "Tax" or, collectively, "Taxes" shall mean (i) any and all federal, state, local and foreign taxes, assessments and other governmental charges, duties, impositions and liabilities, including taxes based upon or measured by gross receipts, income, profits, sales, use and occupation, and value added, ad valorem, transfer, franchise, withholding, payroll, recapture, employment, excise and property taxes, together with all interest, penalties and additions imposed with respect to such amounts, (ii) any liability for the payment of any amounts of the type described in clause (i) of this Section 2.7(a) as a result of being a member of an affiliated, consolidated, combined or unitary group for any period, and (iii) any liability for the payment of any amounts of the type described in clauses (i) or (ii) of this Section 2.7(a) as a result of any express or implied obligation

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to indemnify any other person or as a result of any obligations under any agreements or arrangements with any other person with respect to such amounts and including any liability for taxes of a predecessor entity.

(b) Tax Returns and Audits

(i) Nova and each of its Subsidiaries have prepared and timely filed all material required federal, state, local and foreign returns, estimates, information statements and reports and any amendments thereto ("Tax Returns") relating to any and all Taxes concerning or attributable to Nova, its Subsidiaries or their respective operations, and such Tax Returns, as of the time of filing were true and correct in all material respects and have been completed in accordance with applicable law.

(ii) Nova and each of its Subsidiaries have timely paid all material Taxes required to be paid. With respect to their employees, Nova and each of its Subsidiaries have timely paid or withheld all federal and state income taxes, Federal Insurance Contribution Act, Federal Unemployment Tax Act and other material Taxes required to be paid or withheld. Furthermore, any such amounts withheld by Nova and each of its Subsidiaries with respect to their employees have been timely paid over to the appropriate Taxing authority.

(iii) Neither Nova nor any of its Subsidiaries has been delinquent in the payment of any material Tax, nor is there any material Tax deficiency outstanding, assessed or proposed against Nova or any of its Subsidiaries, nor has Nova or any of its Subsidiaries executed any waiver of any statute of limitations on or extending the period for the assessment or collection of any material Tax.

(iv) No audit or other examination of any Tax Return of Nova or any of its Subsidiaries is presently in progress, nor has Nova or any of its Subsidiaries been notified of any request for such an audit or other examination. No adjustment relating to any Tax Return filed by Nova or any of its Subsidiaries has been proposed formally or, to the knowledge of Nova, informally by any Tax authority to Nova, any of its Subsidiaries or any representative thereof. Neither Nova nor any of its Subsidiaries has been notified of any claim made by an authority in a jurisdiction where Nova or its Subsidiaries do not file Tax Returns that Nova or any of its Subsidiaries are or may be subject to taxation by that jurisdiction.

(v) Neither Nova nor any of its Subsidiaries has any liabilities for unpaid Taxes (other than such liabilities, including without limitation any penalties or interest thereon, that are immaterial to Nova), which have not been accrued or reserved on the Nova Balance Sheet in accordance with GAAP, and neither Nova nor any of its Subsidiaries has incurred any liability for Taxes since the date of the Nova Balance Sheet other than in the ordinary course of business.

(vi) Neither Nova nor any of its Subsidiaries has (a) ever been a member of an affiliated group (within the meaning of Code §1504(a)) filing a consolidated federal income Tax Return (other than a group the common parent of which was Nova), (b) ever been a party to any Tax sharing, indemnification or allocation agreement, nor does Nova or any of its Subsidiaries owe any amount under any such agreement and (c) any liability for the Taxes of any person (other than Nova or any of its Subsidiaries) under Treas. Reg. § 1.1502-6 (or any similar provision of state, local or foreign law), as a transferee or successor, by contract, or otherwise and (d) ever been a party to any joint venture, partnership or other agreement that, to the knowledge of Nova, could be treated as a partnership for Tax purposes.

(vii) Neither Nova nor any of its Subsidiaries has constituted either a "distributing corporation" or a "controlled corporation" in a distribution of stock intended to qualify for tax-free treatment under Section 355 of the Code (x) in the two years prior to the date of this Agreement or (y) in a distribution that otherwise could constitute part of a "plan" or "series of related transactions" within the meaning of Section 355(e) of the Code in conjunction with the Merger.

(viii) Neither Nova nor any of its Subsidiaries has engaged in a reportable transaction under Treas. Reg. § 1.6011-4(b) or in a transaction that is the same as or substantially similar to one of the

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types of transactions that the Internal Revenue Service has determined to be a tax avoidance transaction and identified by notice, regulation, or other form of published guidance as a listed transaction, as set forth in Treas. Reg. § 1.6011-4(b)(2).

2.8 Intellectual Property. Except as set forth in Section 2.8 of the Nova Disclosure Letter:

(a) To the knowledge of Nova, (i) the operation of the business of Nova and each of its Subsidiaries as currently conducted, including their products and services, does not infringe or misappropriate in any material respect the Intellectual Property (defined below) of any third party or constitute unfair competition or unfair trade practices under the laws of any jurisdiction, and (ii) Nova and its Subsidiaries own or possess sufficient rights to all material Intellectual Property used in or necessary for the operation of their businesses as currently conducted

(b) Neither Nova nor any of its Subsidiaries have received any written notice from any third party as of the date hereof, and, to the knowledge of Nova, there is no other assertion or pending threat from any third party, that the operation of the business of Nova or any of its Subsidiaries as currently conducted, or any of their products or services, infringes or misappropriates the Intellectual Property of any third party or constitutes unfair competition or unfair trade practices under the laws of any jurisdiction. Neither Nova nor any of its Subsidiaries have brought or have been a party to any suits, arbitrations or other adversarial proceedings with respect to a third party's Intellectual Property that remain unresolved.

(c) To the knowledge of Nova, as of the date hereof, no person is infringing or misappropriating any material Intellectual Property owned or exclusively licensed by Nova or any of its Subsidiaries. Neither Nova nor any of its Subsidiaries have brought or have been a party to any suits, arbitrations or other adversarial proceedings with respect to their Intellectual Property against any third party that remain unresolved.

(d) Nova and its Subsidiaries are not subject to any judgment, order, writ, injunction or decree of any court or any Federal, state, local, foreign or other governmental department, commission, board, bureau, agency or instrumentality, domestic or foreign, or any arbitrator, which restricts or impairs the use of any material Intellectual Property of Nova and its Subsidiaries. The Intellectual Property owned or exclusively licensed by Nova is free and clear of any Liens.

(e) To the knowledge of Nova, Nova and each of its Subsidiaries are in compliance in all material respects with, and have not breached in any material respect any term of any contracts, licenses or other agreements in which Nova and its Subsidiaries have granted or received any Intellectual Property ("Nova IP Agreements"). To the knowledge of Nova, all third parties to such Nova IP Agreements are in compliance in all material respects with, and have not breached in any material respect, any of their terms

(f) The Merger will not result in any breach of or constitute a default (or an event that with notice or lapse of time or both would become a default) under, or impair Nova's rights or obligations or alter the rights or obligations of any third party under, or give to others any rights of termination, amendment, acceleration or cancellation of, or result in the creation of a Lien on any of the properties or assets of Nova or any of its Subsidiaries pursuant to, any material Nova IP Agreements. The Merger will not result in the obligation for Nova or its Subsidiaries to pay any consideration, royalties or other amounts to any third party in excess of those amounts otherwise owed by Nova or its Subsidiaries immediately prior to the Merger

(g) The Merger will not, as a result of any contracts, licenses or other agreements entered into by Nova, result in: (i) Saturn or its Subsidiaries (other than the Subs, but only to the extent existing prior to the Merger), being bound by any material non-compete, exclusivity obligation or other restriction on the operation of its business, or (ii) Saturn or its Subsidiaries (other than the Subs, but only to the extent existing prior to the Merger) granting to any third party any rights or licenses to any material Intellectual Property of Saturn or any affiliate of Saturn (including without limitation a covenant not to sue)

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(h) To the knowledge of Nova, no Governmental Entity, university, college, other educational institution or research center has any claim or right in or to any product or Intellectual Property owned or exclusively licensed by Nova. Nova has not entered into any agreement granting any such rights.

(i) Nova does not incorporate into, combine with, or distribute in conjunction with any of its products or services any software that is subject to any "copyleft" or other obligation or condition under any "open source" or similar license, such as the GNU Public License (GPL), that requires or conditions the distribution of such product or services on the disclosure, licensing or distribution of any Nova source code.

(j) "**Intellectual Property**" shall mean any or all of the following and all rights in, arising out of, or associated therewith: (a) all United States, international and foreign patents and applications therefor and all reissues, divisions, renewals, extensions, provisionals, continuations and continuations-in-part thereof; (b) all inventions (whether patentable or not), invention disclosures, improvements, trade secrets, proprietary information, know how, technology, technical data and customer lists, and all documentation relating to any of the foregoing; (c) all copyrights, copyrights registrations and applications therefor, and all other rights corresponding thereto throughout the world; (d) domain names, uniform resource locators, and other names and locators associated with the Internet, (e) all computer software, including all source code, object code, firmware, development tools, files, records and data, and all media on which any of the foregoing is recorded; (f) all industrial designs and any registrations and applications therefor throughout the world; (g) all trade names, logos, common law trademarks and service marks, trademark and service mark registrations and applications therefor throughout the world; (h) all databases and data collections and all rights therein throughout the world; (i) all moral and economic rights of authors and inventors, however denominated, throughout the world, and (j) any similar or equivalent rights to any of the foregoing anywhere in the world

## 2.9 Compliance; Permits

(a) Compliance. Neither Nova nor any of its Subsidiaries is, in any material respect, in conflict with, or in default or in violation of any applicable Legal Requirement applicable to Nova or any of its Subsidiaries or by which Nova or any of its Subsidiaries or any of their respective businesses or properties is, or Nova believes is reasonably likely to be, bound or affected, except, in each case, or in the aggregate, for conflicts, violations and defaults that would not have a Material Adverse Change to Nova. As of the date hereof, no investigation or review by any Governmental Entity is pending or, to the knowledge of Nova, has been threatened in a writing delivered to Nova or any of its Subsidiaries, against Nova or any of its Subsidiaries. There is no judgment, injunction, order or decree binding upon Nova or any of its Subsidiaries which has or would reasonably be expected to have the effect of prohibiting or impairing any business practice of Nova or any of its Subsidiaries, any acquisition of property by Nova or any of its Subsidiaries or the conduct of business by Nova and its Subsidiaries as currently conducted, except as would not have a Material Adverse Change to Nova.

(b) Permits. Nova and its Subsidiaries hold, to the extent legally required, all permits, licenses, variances, clearances, consents, commissions, franchises, exemptions, orders, authorizations and approvals from Governmental Entities ("Permits") that are required for the operation of the business of Nova (collectively, "Nova Permits"), except where the failure to hold such Permits would not have a Material Adverse Change to Nova. As of the date hereof, no suspension or cancellation of any of the Nova Permits is pending or, to the knowledge of Nova, threatened. Nova and its Subsidiaries are in compliance with the terms of the Nova Permits, except as would not have a Material Adverse Change to Nova

2.10 Litigation. Except as otherwise set forth in Section 2.10 of the Nova Disclosure Letter, as of the date hereof, there are no material claims, suits, actions or proceedings pending or, to the knowledge of Nova, threatened against Nova or any of its Subsidiaries, before any court, governmental department, commission, agency, instrumentality or authority, or any arbitrator.

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2.11 Brokers' and Finders' Fees; Fees and Expenses Except for fees payable to Credit Suisse First Boston pursuant to an engagement letter dated December 3, 2002, a copy of which has been provided to Saturn, Nova has not incurred, nor will it incur, directly or indirectly, any liability for brokerage or finders' fees or agents' commissions or any similar charges in connection with this Agreement or any transaction contemplated hereby, and Nova has not entered into any indemnification agreement or arrangement with any person in connection with this Agreement and the transactions contemplated hereby. An itemized good faith estimate of the fees and expenses of any accountant, broker, financial advisor, consultant, legal counsel or other person retained by Nova in connection with this Agreement or the transactions contemplated hereby incurred or to be incurred by Nova in connection with this Agreement and the transactions contemplated hereby (including any agreement or understanding with respect to such agreement or understanding, whether written or oral) is set forth in Section 2.11 of the Nova Disclosure Letter, and all such fees are, and shall be, reasonable and customary in nature.

2.12 Transactions with Affiliates Except as set forth in the Nova SEC Reports, since the date of Nova's last proxy statement filed with the SEC, no event has occurred as of the date hereof that would be required to be reported by Nova pursuant to Item 404 of Regulation S-K promulgated by the SEC. Section 2.12 of the Nova Disclosure Letter identifies each person who is an "affiliate" (as that term is used in Rule 145 promulgated under the Securities Act) of Nova as of the date hereof.

2.13 Employee Benefit Plans

(a) Schedule Section 2.13(a) of the Nova Disclosure Letter contains an accurate and complete list of (i) each material plan, program, policy, practice, contract, agreement or other arrangement providing for compensation, severance, termination pay, deferred compensation, performance awards, stock or stock-related awards, fringe benefits or other employee benefits or remuneration of any kind, whether written or unwritten or otherwise, funded or unfunded, including without limitation, each "employee benefit plan," within the meaning of Section 3(3) of the Employee Retirement Income Security Act of 1974, as amended ("ERISA") which is or has been maintained, contributed to, or required to be contributed to, by Nova or any Subsidiary of Nova or any other person or entity under common control with Nova or any Subsidiaries within the meaning of Section 414(b), (c), (m) or (o) of the Code and the regulations issued thereunder (each a "Nova ERISA Affiliate") for the benefit of any current or former or retired employee, consultant or director of Nova or any Nova ERISA Affiliate (each a "Nova Employee"), or with respect to which Nova or any Nova ERISA Affiliate has or may have any liability or obligation (collectively, the "Nova Employee Plans"), and (ii) each material management, employment, severance, consulting, relocation, repatriation, expatriation, visa, work permit or other similar agreement, contract or understanding between Nova or any Nova ERISA Affiliate and any Nova Employee (each a "Nova Employee Agreement"), except to the extent a Nova Employee Agreement provides for "at-will" employment and does not provide for severance payments or benefits or is an agreement with a Nova Employee who provides services outside of the United States. As of the date hereof, neither Nova nor any Nova ERISA Affiliate has any plan or commitment to establish any new Nova Employee Plan or Nova Employee Agreement, to modify any Nova Employee Plan or Nova Employee Agreement (except to the extent required by law or to conform any such Nova Employee Plan or Nova Employee Agreement to the requirements of any applicable law, in each case as previously disclosed to Saturn in writing, or as required by this Agreement), or to adopt or enter into any Nova Employee Plan or Nova Employee Agreement.

(b) Documents Nova has provided or made available to Saturn correct and complete copies of: (i) all documents embodying each Nova Employee Plan and each Nova Employee Agreement including (without limitation) all amendments thereto and all related trust documents, administrative service agreements, group annuity contracts, group insurance contracts, and policies pertaining to fiduciary liability insurance covering the fiduciaries for each Nova Employee Plan; (ii) the most recent annual actuarial valuations, if any, prepared for each Nova Employee Plan; (iii) the three (3) most recent annual reports (Form Series 5500 and all schedules and financial statements attached thereto), if any, required under ERISA or the Code in connection with each Nova Employee Plan; (iv) if the Nova Employee Plan is funded, the most recent annual and periodic accounting of Nova Employee Plan assets; (v) the most recent summary plan description together with the summary(ies) of material modifications thereto, if any.

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required under ERISA with respect to each Nova Employee Plan; (vi) all Internal Revenue Service (“IRS”) determination, opinion, notification and advisory letters, and all applications and correspondence to or from the IRS or the Department of Labor (“DOL”) with respect to any such application or letter; (vii) all communications material to any Nova Employee or Nova Employees relating to any Nova Employee Plan and any proposed Nova Employee Plans, in each case, relating to any amendments, terminations, establishments, increases or decreases in benefits, acceleration of payments or vesting schedules or other events which would result in any material liability to Nova; (viii) all material correspondence to or from any Governmental Entity relating to any Nova Employee Plan; (ix) all model COBRA forms and related notices (or such forms and notices as required under comparable law); (x) the three (3) most recent plan years discrimination tests for each Nova Employee Plan; and (xi) all registration statements, annual reports (Form 11-K and attachments thereto) and prospectuses prepared in connection with each Nova Employee Plan. As used in this Agreement, “COBRA” shall mean the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended and as codified in Section 4980B of the Code and Section 601 et. seq. of ERISA.

(c) *Employee Plan Compliance*. Except as would not result in a Material Adverse Change to Nova, Nova and its Nova ERISA Affiliates have performed all obligations required to be performed by them under, are not in default or violation of, and have no knowledge of any default or violation by any other party to each Nova Employee Plan, and each Nova Employee Plan has been established and maintained in accordance with its terms and in compliance with all applicable laws, statutes, orders, rules and regulations, including but not limited to ERISA or the Code. Any Nova Employee Plan intended to be qualified under Section 401(a) of the Code and each trust intended to qualify under Section 501(a) of the Code has obtained determination letters from the IRS with respect to all Tax law changes prior to the Economic Growth and Tax Relief Reconciliation Act of 2001 to the effect that such Nova Employee Plan is qualified Sections 401(a) and 501(a), respectively, of the Code, and no such determination letter has been revoked (or has revocation been threatened). No “prohibited transaction,” within the meaning of Section 4975 of the Code or Sections 406 and 407 of ERISA, and not otherwise exempt under Section 408 of ERISA, has occurred with respect to any Nova Employee Plan. There are no actions, suits or claims pending (other than routine claims for benefits), or, to the knowledge of Nova, threatened or reasonably anticipated (other than routine claims for benefits) against any Nova Employee Plan or against the assets of any Nova Employee Plan. Each Nova Employee Plan can be amended, terminated or otherwise discontinued after the Effective Time in accordance with its terms, without material liability to Saturn, Nova or any of its Nova ERISA Affiliates (other than ordinary administration expenses). There are no audits, inquiries or proceedings pending or, to the knowledge of Nova or any Nova ERISA Affiliates, threatened by the IRS or DOL, or any other Governmental Entity with respect to any Nova Employee Plan. Neither Nova nor any Nova ERISA Affiliate is subject to any penalty or tax with respect to any Nova Employee Plan under Section 502(i) of ERISA or Sections 4975 through 4980 of the Code. Nova and each Nova ERISA Affiliate have timely made all contributions and other payments required by and due under the terms of each Nova Employee Plan, in all material respects.

(d) *No Pension or Welfare Plans*. Neither Nova nor any Nova ERISA Affiliate has ever maintained, established, sponsored, participated in, or contributed to, any (i) Nova Employee Plan which is an “employee pension benefit plan,” within the meaning of Section 3(2) of ERISA (“Pension Plan”) and is subject to Title IV of ERISA or Section 412 of the Code, (ii) Pension Plan which is a “multiemployer plan,” as defined in Section 3(37) of ERISA, (iii) “multiple employer plan” as defined in ERISA or the Code, or (iv) a “funded welfare plan” within the meaning of Section 419 of the Code. No Nova Employee Plan provides health benefits that are not fully-insured through an insurance contract.

(e) *No Post-Employment Obligations*. Except as set forth in Section 2.13(e) of the Nova Disclosure Letter, no Nova Employee Plan provides, or reflects or represents any liability to provide post-termination or retiree welfare benefits to any person for any reason, except as may be required by COBRA or other applicable statute, and neither Nova nor any Nova ERISA Affiliate has ever represented, promised or contracted (whether in oral or written form) to any Nova Employee (either individually or to

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Nova Employees as a group) or any other person that such Nova Employee(s) or other person would be provided with post-termination or retiree welfare benefits, except to the extent required by statute.

(f) Health Care Compliance Neither Nova nor any Nova ERISA Affiliate has, prior to the Effective Time and in any material respect, violated any of the health care continuation requirements of COBRA, the requirements of the Health Insurance Portability and Accountability Act of 1996, or any similar provisions of state law applicable to Nova Employees.

(g) Executive Loans To the knowledge of Nova, neither Nova nor any Nova ERISA Affiliate has violated Section 402 of the Sarbanes-Oxley Act of 2002 ("SOX")

(h) Effect of Transaction.

(i) Except as set forth on Section 2.13(h)(i) of the Nova Disclosure Letter, the execution of this Agreement and the consummation of the transactions contemplated hereby will not (either alone or upon the occurrence of any additional or subsequent events) constitute an event under any Nova Employee Plan or Nova Employee Agreement that will or may result in any payment (whether of severance pay or otherwise), acceleration, forgiveness of indebtedness, vesting, distribution, increase in benefits or obligation to fund benefits with respect to any Nova Employee.

(ii) Except as set forth on Section 2.13(h)(ii) of the Nova Disclosure Letter, no payment or benefit which will or may be made by Nova or its Nova ERISA Affiliates with respect to any Nova Employee could not reasonably be deductible under 280G of the Code. There is no contract, agreement, plan or arrangement to which Nova or any of its Nova ERISA Affiliates is a party or by which it is bound to compensate any Nova Employee for excise taxes paid pursuant to Section 4999 of the Code.

(i) Employment Matters Except as would not result in a Material Adverse Change to Nova, Nova: (i) is in compliance with all applicable foreign, federal, state and local laws, rules and regulations respecting employment, employment practices, terms and conditions of employment and wages and hours, in each case, with respect to Nova Employees; (ii) has withheld and reported all amounts required by law or by agreement to be withheld and reported with respect to wages, salaries and all other payments to Nova Employees, and (iii) is not liable for any payment to any trust or other fund governed by or maintained by or on behalf of any Governmental Entity, with respect to unemployment compensation benefits, social security or other benefits or obligations for Nova Employees (other than routine payments to be made in the normal course of business and consistent with past practice). Except as would result in a Material Adverse Change to Nova, neither Nova nor any Nova ERISA Affiliate has or reasonably anticipates any direct or indirect liability with respect to any misclassification of any person as an independent contractor rather than as an employee, or with respect to any employee leased from another employer.

(j) Labor No work stoppage or labor strike against Nova or any Nova ERISA Affiliate is pending, or to the knowledge of Nova, threatened or reasonably anticipated. Nova does not know of any activities or proceedings of any labor union to organize any Nova Employees. Except as set forth in Schedule 2.13(j), there are no actions, suits, claims, labor disputes or grievances pending, or, to the knowledge of Nova, threatened or reasonably anticipated relating to any labor, safety or discrimination matters involving any Nova Employee, including, without limitation, charges of unfair labor practices or discrimination complaints, which, if adversely determined, would, individually or in the aggregate, result in a Material Adverse Change to Nova. Neither Nova nor any of its subsidiaries has engaged in any unfair labor practices within the meaning of the National Labor Relations Act. Except as set forth in Schedule 2.13(j), Nova is not presently, nor has it been in the past, a party to, or bound by, any collective bargaining agreement or union contract with respect to Nova Employees and no collective bargaining agreement is being negotiated by Nova or any Nova ERISA Affiliate with respect to Nova Employees. Neither Nova nor any of its Subsidiaries have incurred any material liability or material obligation under the Worker Adjustment and Retraining Notification Act of 1988, as amended, or any similar state or local law which remains unsatisfied.

# EXHIBIT C

## PART 2

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(a) Properties Neither Nova nor any of its Subsidiaries owns any real property. Section 2.14 of the Nova Disclosure Letter sets forth a list of all real property currently leased, subleased, licensed, used or occupied by Nova or any of its Subsidiaries, the name of the lessor, the date of the lease and each amendment thereto and the aggregate annual rental and/or other fees payable under any such lease. All leases material to Nova (including, without limitation, the Redwood City Lease (as defined below)) are in full force and effect, are valid and effective in accordance with their respective terms, and there is not, under any of such leases, any existing material default or material event of default (or event which with notice or lapse of time, or both, would constitute a material default) by Nova or any of its Subsidiaries. With respect to that certain Triple Net Building Lease dated as of May 5, 2000 by and between Pacific Shores Development, LLC, as landlord, and Nova, as tenant (the “**Redwood City Lease**”), Nova has satisfied and performed all of Nova’s obligations to pay for the construction of the “Tenant Improvements”, as such term is defined in the Redwood City Lease, in accordance with the terms and provisions of the Redwood City Lease.

(b) Valid Title. Nova and each of its Subsidiaries has good and valid title to, or, in the case of leased properties and assets, valid leasehold interests in, all of its tangible properties and assets, real, personal and mixed, used or held for use in its business, free and clear of any Liens except for Liens imposed by law in respect of obligations which are owed with respect to Taxes that are not yet due, being contested in good faith, or for which an adequate reserve has been provided for on the Nova Financials, except for such Liens which are not material in character, amount or extent, and which do not materially detract from the value, or materially interfere with the present use, of the property subject thereto or affected thereby, and except for Liens with respect to properties and assets that are immaterial to Nova and its Subsidiaries taken as a whole.

2.15 Environmental Matters

(a) Hazardous Material. Except as would not result in a Material Adverse Change to Nova or its Subsidiaries, no underground storage tanks and no amount of any substance that has been designated by any Governmental Entity or by applicable federal, state or local law to be radioactive, toxic, hazardous or otherwise a danger to health or the environment, including PCBs, asbestos, petroleum, urea-formaldehyde and all substances listed as hazardous substances pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, or defined as a hazardous waste pursuant to the United States Resource Conservation and Recovery Act of 1976, as amended, and the regulations promulgated pursuant to said laws, but excluding office and janitorial supplies, (a “**Hazardous Material**”) are present, as a result of the actions of Nova or any of its Subsidiaries or any affiliate of Nova, or, to the knowledge of Nova, as a result of any actions of any third party or otherwise, in, on or under any property, including the land and the improvements, ground water and surface water thereof, that Nova or any of its Subsidiaries has at any time owned, operated, occupied or leased.

(b) Hazardous Materials Activities. Except as would not result in a Material Adverse Change to Nova: (i) neither Nova nor any of its Subsidiaries has transported, stored, used, manufactured, disposed of, released or exposed its employees or others to Hazardous Materials in violation of any law in effect on or before the Closing Date and (ii) neither Nova nor any of its Subsidiaries has disposed of, transported, sold, used, released, exposed its employees or others to or manufactured any product containing a Hazardous Material (collectively, “**Hazardous Materials Activities**”) in violation of any rule, regulation, treaty or statute promulgated by any Governmental Entity in effect prior to or as of the date hereof to prohibit, regulate or control Hazardous Materials or any Hazardous Material Activity.

2.16 Contracts

(a) Material Contracts. For purposes of this Agreement, “**Nova Material Contract**” shall mean:

(i) any “material contracts” (as such term is defined in Item 601(b)(10) of Regulation S-K of the SEC) with respect to Nova and its Subsidiaries;

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- (ii) any agreement of indemnification or any guaranty of third parties other than any agreement of indemnification entered into in connection with the sale or license of services or hardware or software products in the ordinary course of business;
- (iii) any Contract containing any covenant (A) limiting in any respect the right of Nova or any of its Subsidiaries to engage in any line of business, to make use of any Intellectual Property or compete with any person in any line of business, (B) granting any exclusive rights, (C) granting any person "Most Favored Nations" or similar status, or (D) otherwise restricting the right of Nova and its Subsidiaries to sell, distribute or manufacture any products or services or to purchase or otherwise obtain any software, components, parts or subassemblies in a manner that would be reasonably likely to have a material adverse effect on the business of Nova;
- (iv) any Contract relating to the disposition or acquisition by Nova or any of its Subsidiaries after the date of this Agreement of a material amount of assets not in the ordinary course of business or pursuant to which Nova or any of its Subsidiaries has any material ownership interest in any other person or other business enterprise other than Nova's Subsidiaries;
- (v) any dealer, distributor or joint marketing agreement, under which Nova or any of its Subsidiaries have continuing obligations or costs in excess of \$100,000 per year, to jointly market any product, technology or service, and which may not be canceled without penalty upon notice of ninety (90) days or less; or any agreement pursuant to which Nova or any of its Subsidiaries have jointly developed or have continuing obligations to jointly develop any product or Intellectual Property that will not be exclusively owned by Nova or any of its Subsidiaries, or any joint venture agreement;
- (vi) any Contract to license or provide source code to any third party for any product or technology that is material to Nova and its Subsidiaries taken as a whole, other than any such Contracts entered into in the ordinary course of business;
- (vii) any Contract (A) containing any support or maintenance obligation on the part of Nova or any of its Subsidiaries outside of the ordinary course of business consistent with past practice or (B) containing any service obligation or cost to deliver services on the part of Nova or any of its Subsidiaries in excess of \$250,000 after the date hereof, other than those obligations that are terminable by Nova or any of its Subsidiaries on no more than ninety (90) days notice without liability or financial obligation to Nova or its Subsidiaries after or with respect to such termination (but excluding any Nova Employee Agreement);
- (viii) any Contract to sell or distribute any of Nova's products, services or technology, except agreements with distributors or sales representative in the ordinary course of business consistent with past practice;
- (ix) any mortgages, indentures, guarantees, loans or credit agreements, security agreements or other Contracts relating to the borrowing of money or extension of credit, other than accounts receivables and payables in the ordinary course of business;
- (x) (A) any settlement agreement entered into within five (5) years prior to the date of this Agreement relating to Intellectual Property, and (B) any settlement agreement not relating to Intellectual Property entered into within two (2) years prior to the date of this Agreement, other than (I) releases immaterial in nature or amount entered into with former employees or independent contractors of Nova in the ordinary course of business in connection with the cessation of such employee's or independent contractor's employment with Nova or (II) settlement agreements for cash only that do not exceed \$50,000 as to each such settlement;
- (xi) any other agreement, contract or commitment that requires payments by or obligations of Nova or any Subsidiary after the date hereof in excess of \$250,000 or that requires payments to Nova or any Subsidiary after the date hereof in excess of \$500,000 in any individual case not described in clauses (i) through (x) above;

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(xii) any Nova IP Agreement (other than non-exclusive out-bound licenses of Nova's or its Subsidiaries' software products or services, or immaterial in-bound licenses, entered into in the ordinary course of business consistent with past practices); or

(xiii) any Contract, or group of Contracts with a person (or group of affiliated persons), the termination or breach of which would be reasonably expected to have a Material Adverse Change to Nova.

(b) Schedule. Section 2.16(b) of the Nova Disclosure Letter sets forth a list of all Nova Material Contracts to which Nova or any of its Subsidiaries is a party or is bound by as of the date hereof which are described in Sections 2.16(a)(i) through 2.16(a)(xiii) hereof. A "Nova Material Contract" shall be deemed to include any oral or written amendment or modification to any such Nova Material Contract. Nova has made available to Saturn an accurate and complete copy of each Nova Material Contract.

(c) No Breach. All Nova Material Contracts are valid and in full force and effect except to the extent they have previously expired in accordance with their terms or if the failure to be in full force and effect, individually or in the aggregate, would not reasonably be expected to have a Material Adverse Change to Nova. Neither Nova nor any of its Subsidiaries, nor to the knowledge of Nova, the other party thereto, has violated any provision of, or committed or failed to perform any act which, with or without notice, lapse of time or both would constitute a breach or default under the provisions of, any Nova Material Contract, except in each case for those breaches and defaults which, individually or in the aggregate, would not reasonably be expected to have a Material Adverse Change to Nova.

2.17 Disclosure. None of the information supplied or to be supplied by or on behalf of Nova for inclusion or incorporation by reference in the registration statement on Form S-4 (or similar successor form) to be filed with the SEC by Saturn in connection with the issuance of Saturn Common Stock in the Merger (including amendments or supplements thereto) (the "Registration Statement") will, at the time the Registration Statement becomes effective under the Securities Act, contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they are made, not misleading. None of the information supplied or to be supplied by or on behalf of Nova for inclusion or incorporation by reference in the Prospectus/ Proxy Statement to be filed with the SEC as part of the Registration Statement (the "Prospectus/ Proxy Statement"), will, at the time the Prospectus/ Proxy Statement is mailed to the stockholders of Saturn, at the time of the Saturn Stockholders' Meeting (as defined in Section 5.2(b)) or as of the Effective Time, contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they are made, not misleading. The Prospectus/ Proxy Statement will comply as to form in all material respects with the provisions of the Exchange Act and the rules and regulations promulgated by the SEC thereunder. Notwithstanding the foregoing, no representation or warranty is made by Nova with respect to statements made or incorporated by reference therein about Saturn supplied by Saturn for inclusion or incorporation by reference in the Registration Statement or the Prospectus/ Proxy Statement.

2.18 Board Approval. The Nova Board has, by resolutions duly adopted by unanimous vote at a meeting of all Directors duly called and held and not subsequently rescinded or modified in any way (the "Nova Board Approval") (i) determined that the Merger is fair to, and in the best interests of, Nova and its stockholders and declared this Agreement and the Merger to be advisable, (ii) approved this Agreement and the transactions contemplated thereby, including the Merger, and (iii) recommended that the stockholders of Nova approve and adopt this Agreement and approve the Merger and directed that such matter be submitted to Nova's stockholders at the Nova Stockholders' Meeting.

2.19 Fairness Opinion. The Nova Board has received a written opinion from Credit Suisse First Boston, dated as of May 9, 2005, in customary form to the effect that, as of such date, the Merger Consideration is fair, from a financial point of view, to Nova stockholders, and has delivered to Saturn a copy of such opinion

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2.20 Takeover Statutes. The Nova Board has taken all actions so that the restrictions contained in Section 203 of the Delaware Law applicable to a "business combination" (as defined in such Section 203), and any other similar applicable Legal Requirement, will not apply to Saturn during the pendency of this Agreement, including the execution, delivery or performance of this Agreement and the consummation of the Merger and the other transactions contemplated hereby.

2.21 Insurance. Nova and each of its Subsidiaries maintain insurance policies (including fire and casualty, general liability, business interruption, product liability and sprinkler and water damage insurance policies) and/or fidelity bonds covering its assets, business, equipment, properties, operations, and the Nova Employees (collectively, the "Insurance Policies") Section 2.21 of the Nova Disclosure Letter lists all such Insurance Policies and includes for each such Insurance Policy, the amount of the annual premium and the maximum coverage amounts per incident and per year. There is no claim by Nova or any of its Subsidiaries pending under any of the Insurance Policies as to which coverage has been questioned, denied or disputed by the underwriters of such policies or bonds. All premiums due and payable under all such Insurance Policies have been paid, and Nova and each of its Subsidiaries, as the case may be, is otherwise in compliance with the terms of such Insurance Policies. Nova has not made any untrue statement about itself or its business in any application for insurance. All Insurance Policies remain in full force and effect, and neither Nova nor any of its Subsidiaries has knowledge of any threatened termination of, or premium increase with respect to, any such Insurance Policies.

2.22 Rights Plan. Nova has taken all necessary action so that (i) Saturn shall not be an "Acquiring Person" under the Nova Rights Agreement solely by virtue of the entering into of this Agreement and the performance of the transactions contemplated hereby, including the Merger, and (ii) the entering into of this Agreement and the Merger and the performance of the transactions contemplated hereby will not result in the grant of any rights to any person under the Nova Rights Agreement or enable or require the Nova Rights to be exercised, distributed or triggered.

### ARTICLE III

#### REPRESENTATIONS AND WARRANTIES OF SATURN AND THE SUBS

Saturn and the Subs hereby represent and warrant to Nova, subject only to such exceptions as are specifically disclosed in writing in the disclosure schedule supplied by Saturn to Nova (which such exceptions shall reference the specific section and, if applicable, subsection number of this Article III to which it applies, and any information disclosed in any such section or subsection shall be deemed to be disclosed only for purposes of such section or subsection, except to the extent it is reasonably apparent that the disclosure contained in such section or subsection contains enough information regarding the subject matter of other representations and warranties contained in this Article III so as to qualify or otherwise apply to such other representations and warranties), dated as of the date hereof and certified by a duly authorized officer of Saturn (the "Saturn Disclosure Letter"), as follows:

##### 3.1 Organization; Standing and Power; Charter Documents; Subsidiaries

(a) Organization; Standing and Power. Saturn and each of its Subsidiaries (i) is a corporation or other organization duly organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation or organization, (ii) has the requisite power and authority to own, lease and operate its properties and to carry on its business as now being conducted and (iii) is duly qualified or licensed and in good standing to do business in each jurisdiction in which the nature of its business or the ownership or leasing of its properties makes such qualification or licensing necessary, other than in such jurisdictions where the failure to so qualify or to be in good standing, individually or in the aggregate, would not reasonably be expected to have a Material Adverse Change to Saturn.

(b) Charter Documents. Saturn has delivered or made available to Nova (i) a true and correct copy of the Certificate of Incorporation (including any Certificate of Designations) and Bylaws of Saturn, each as amended to date (collectively, the "Saturn Charter Documents") and (ii) the Subsidiary Charter Documents of each of its Significant Subsidiaries, and each such instrument is in full force and effect.

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Saturn is not in violation of any of the provisions of the Saturn Charter Documents and each Significant Subsidiary of Saturn is not in violation of its respective Subsidiary Charter Documents.

(c) *Subsidiaries* Exhibit 21 to Saturn's Annual Report on Form 10-K for the fiscal year ended September 30, 2004 includes all the Subsidiaries of Saturn which are Significant Subsidiaries. All the outstanding shares of capital stock of, or other equity or voting interests in, each such Significant Subsidiary have been validly issued and are fully paid and nonassessable and are owned by Saturn, a wholly-owned Subsidiary of Saturn, or Saturn and another wholly-owned Subsidiary of Saturn, free and clear of all Liens, including any restriction on the right to vote, sell or otherwise dispose of such capital stock or other ownership interests, except for restrictions imposed by applicable securities laws, except as would not reasonably be expected to have a Material Adverse Change to Saturn. Other than the Subsidiaries of Saturn, neither Saturn nor any of its Subsidiaries owns any capital stock of, or other equity or voting interests of any nature in, or any interest convertible, exchangeable or exercisable for, capital stock of, or other equity or voting interests of any nature in, any other person. No assets or liabilities that are material, individually or in the aggregate, to Saturn are held by any Subsidiary of Saturn that is not a Significant Subsidiary.

### 3.2 Capital Structure

(a) *Capital Stock*. The authorized capital stock of Saturn consists of: (i) 280,000,000 shares of Saturn Common Stock, par value \$0.001 per share and (ii) 40,000,000 shares of preferred stock, par value \$0.001 per share, of which 100,000 shares have been designated as Series A Preferred Stock (the "Saturn Series A Preferred Stock"), all of which will be reserved for issuance upon exercise of preferred stock purchase rights (the "Saturn Rights") issuable pursuant to the Preferred Shares Rights Agreement dated as of October 23, 1996 and amended and restated as of March 15, 2004 by and between Saturn and U S Stock Transfer Corporation (the "Saturn Rights Agreement"), a true and complete copy of which is filed as Exhibit 1 to Saturn's Registration Statement on Form 8-A filed with the SEC on March 19, 2004, and of which 15,000,000 shares have been designated as Series B Preferred Stock (the "Saturn Series B Preferred Stock," and together with the Saturn Series A Preferred Stock, the "Saturn Preferred Stock"). At the close of business on April 30, 2005: (i) 106,637,095 shares of Saturn Common Stock were issued and outstanding, excluding shares of Saturn Common Stock held by Saturn in its treasury, (ii) 2,801,434 shares of Saturn Common Stock were issued and held by Saturn in its treasury, and (iii) 3,562,238 shares of Saturn Series B Preferred Stock were issued and outstanding. No shares of Saturn Common Stock are owned or held by any Subsidiary of Saturn. All of the outstanding shares of capital stock of Saturn are, and all shares of capital stock of Saturn which may be issued as contemplated or permitted by this Agreement will be, when issued, duly authorized and validly issued, fully paid and nonassessable and not subject to any preemptive rights.

(b) *Stock Options*. As of the close of business on April 30, 2005: (i) 18,588,087 shares of Saturn Common Stock were subject to issuance pursuant to outstanding options to purchase Saturn Common Stock ("Saturn Options") under the stock option, stock award, stock appreciation or phantom stock plans of Saturn (the "Saturn Stock Option Plans"), (ii) 7,568,257 shares of Saturn Common Stock were reserved for future issuance under the Saturn Stock Option Plans and (iii) 1,147,111 shares of Saturn Common Stock were reserved for future issuance under Saturn's 1995 Employee Stock Purchase Plan (the "Saturn ESPP"). All shares of Saturn Common Stock subject to issuance under the Saturn Stock Option Plans and the Saturn ESPP, upon issuance in accordance with the terms and conditions specified in the instruments pursuant to which they are issuable, would be duly authorized, validly issued, fully paid and nonassessable. There are no commitments or agreements of any character to which Saturn is bound obligating Saturn to accelerate the vesting of any Saturn Option as a result of the Merger (whether alone or upon the occurrence of any additional or subsequent events). There are no outstanding or authorized stock appreciation, phantom stock, profit participation or other similar outstanding or authorized equity compensation rights with respect to Saturn.

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(c) *Voting Debt*. No Voting Debt of Saturn is issued or outstanding as of the date hereof.

(d) *Other Securities*. Except as otherwise set forth in Section 3.2 of the Saturn Disclosure Letter, as of the date hereof, there are no securities, options, warrants, calls, rights, contracts, commitments, agreements, instruments, arrangements, understandings, obligations or undertakings of any kind to which Saturn or any of its Subsidiaries is a party or by which any of them is bound obligating Saturn or any of its Subsidiaries to (including on a deferred basis) issue, deliver or sell, or cause to be issued, delivered or sold, additional shares of capital stock, Voting Debt or other voting securities of Saturn or any of its Subsidiaries, or obligating Saturn or any of its Subsidiaries to issue, grant, extend or enter into any such security, option, warrant, call, right, contract, commitment, agreement, instrument, arrangement, understanding, obligation or undertaking. All outstanding shares of Saturn Common Stock, all outstanding Saturn Options, and all outstanding shares of capital stock of each Subsidiary of Saturn have been issued and granted in compliance in all material respects with (i) all applicable securities laws and all other applicable Legal Requirements and (ii) all requirements set forth in applicable material Contracts. Except for shares of Saturn Common Stock outstanding immediately prior to the Effective Time that are unvested or are subject to a repurchase option, risk of forfeiture or other condition under any applicable restricted stock purchase agreement or other agreement with Saturn, there are not any outstanding Contracts of Saturn or any of its Subsidiaries to (i) repurchase, redeem or otherwise acquire any shares of capital stock of, or other equity or voting interests in, Saturn or any of its Subsidiaries or (ii) dispose of any shares of the capital stock of, or other equity or voting interests in, any of its Subsidiaries. Saturn is not a party to any voting agreement with respect to shares of the capital stock of, or other equity or voting interests in, Saturn or any of its Subsidiaries and, to the knowledge of Saturn, other than the Saturn Voting Agreements and the irrevocable proxies granted pursuant to the Saturn Voting Agreements, there are no irrevocable proxies and no voting agreements, voting trusts, rights plans, anti-takeover plans or registration rights agreements with respect to any shares of the capital stock of, or other equity or voting interests in, Saturn or any of its Subsidiaries.

(e) *Capitalization of the Subs*. The authorized capital stock of Sub I consists of 1,000 shares of common stock, par value \$0.001 per share, of which 1,000 shares are issued and outstanding. Saturn is the sole stockholder of Sub I and is the legal and beneficial owner of all 1,000 issued and outstanding shares. Saturn is the sole member of Sub II. Sub I and Sub II were formed by counsel to Saturn at the direction of Saturn on May 5, 2005, solely for purposes of effecting the Merger and the other transactions contemplated hereby. Except as contemplated by this Agreement, the Subs do not hold, nor have they held, any material assets or incurred any material liabilities nor have the Subs carried on any business activities other than in connection with the Merger and the transactions contemplated by this Agreement.

3.3 Authority; Non-Contravention; Necessary Consents

(a) *Authority*. Each of Saturn and the Subs has all requisite corporate power and authority to enter into this Agreement and to consummate the transactions contemplated hereby. The execution and delivery of this Agreement and the consummation of the transactions contemplated hereby have been duly authorized by all necessary corporate action on the part of Saturn and the Subs and no other corporate or other proceedings on the part of Saturn or the Subs are necessary to authorize the execution and delivery of this Agreement or to consummate the Merger and the other transactions contemplated hereby, subject only to (i) the approval of the transactions contemplated by this Agreement by Saturn's stockholders, and (ii) the approval of this Agreement and the approval of the Merger by Saturn as Sub I's sole stockholder and Sub II's sole member and (iii) the filing of the Certificates of Merger pursuant to Delaware Law. This Agreement has been duly executed and delivered by Saturn and the Subs and, assuming due execution and delivery by Nova, constitutes the valid and binding obligation of Saturn, enforceable against Saturn and the Subs in accordance with its terms.

(b) *Non-Contravention*. The execution and delivery of this Agreement by Saturn and the Subs does not, and the performance of this Agreement by Saturn and the consummation of the Merger and the transactions contemplated hereby will not: (i) conflict with or violate the Saturn Charter Documents, the certificate of incorporation or bylaws of Sub I, the organizational documents of Sub II or any other

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Subsidiary Charter Documents of any Subsidiary of Saturn, (ii) subject to compliance with the requirements set forth in Section 3.3(c), conflict with or violate any applicable Legal Requirement in any material respect applicable to Saturn, the Subs or any of Saturn's other Subsidiaries or by which Saturn, the Subs or any of Saturn's other Subsidiaries or any of their respective properties is bound or affected, or (iii) result in any breach of or constitute a default (or an event that with notice or lapse of time or both would become a default) under, or impair Saturn's rights or alter the rights or obligations of any third party under, or give to others any rights of termination, amendment, acceleration or cancellation of, or result in the creation of a Lien on any of the properties or assets of Saturn or any of its Subsidiaries pursuant to, any Saturn Material Contract (as defined in Section 3.16) (other than Saturn IP Agreements (as defined in Section 3.8(e))), except, in the case of clause (iii) of this sentence, as would not reasonably be expected to have a material adverse effect on Saturn. Section 3.3(b) of the Saturn Disclosure Letter lists all consents, waivers and approvals under any of Saturn's or any of its Subsidiaries' Contracts required to be obtained in connection with the consummation of the transactions contemplated hereby, which, if individually or in the aggregate, are not obtained, would result in a material loss of benefits to Nova, Saturn or the Final Surviving Entity as a result of the Merger.

(c) Necessary Consents. No consent, approval, order or authorization of, or registration, declaration or filing with any Governmental Entity is required to be obtained or made by Saturn in connection with the execution and delivery of this Agreement or the consummation of the Merger and other transactions contemplated hereby, except for (i) the Necessary Consents and (ii) such other consents, authorizations, filings, approvals and registrations which if not obtained or made would not be materially adversely affect Saturn, the Subs or Nova or the ability of the parties hereto to consummate the Merger within the time frame in which the Merger would otherwise be consummated in the absence of the need for such consent, approval, order, authorization, registration, declaration or filings.

#### 3.4 SEC Filings; Financial Statements.

(a) SEC Filings. Saturn has filed all required registration statements, prospectuses, reports, schedules, forms, statements and other documents (including exhibits and all other information incorporated by reference) required to be filed by it with the SEC since January 1, 2002. Saturn has made available to Nova all such registration statements, prospectuses, reports, schedules, forms, statements and other documents in the form filed with the SEC. All such required registration statements, prospectuses, reports, schedules, forms, statements and other documents (including those that Saturn may file subsequent to the date hereof) are referred to herein as the "Saturn SEC Reports." As of their respective dates, the Saturn SEC Reports (i) were prepared in accordance and complied in all material respects with the requirements of the Securities Act, or the Exchange Act, as the case may be, and the rules and regulations of the SEC thereunder applicable to such Saturn SEC Reports and (ii) did not at the time they were filed (or if amended or superseded by a filing prior to the date of this Agreement then on the date of such filing) contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. None of Saturn's Subsidiaries is required to file any forms, reports or other documents with the SEC.

(b) Financial Statements. Each of the consolidated financial statements (including, in each case, any related notes thereto) contained in the Saturn SEC Reports (the "Saturn Financials"), including each Saturn SEC Report filed after the date hereof until the Closing: (i) complied as to form in all material respects with the published rules and regulations of the SEC with respect thereto, (ii) was prepared in accordance with GAAP applied on a consistent basis throughout the periods involved (except as may be indicated in the notes thereto or, in the case of unaudited interim financial statements, as may be permitted by the SEC on Form 10-Q, 8-K or any successor form under the Exchange Act), and (iii) fairly presented in all material respects the consolidated financial position of Saturn and its consolidated Subsidiaries as at the respective dates thereof and the consolidated results of Saturn's operations and cash flows for the periods indicated. The balance sheet of Saturn contained in the Saturn SEC Reports as of December 31, 2004 is hereinafter referred to as the "Saturn Balance Sheet." As of April 30, 2005, Saturn's consolidated cash, cash equivalents and restricted cash (calculated in accordance

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with the accounting policies described in Saturn's Form 10-KT filed with the SEC on January 6, 2005 for the transition period from January 1, 2004 to September 30, 2004) were as set forth on Section 2.4(b) of the Saturn Disclosure Letter.

**3.5 No Undisclosed Liabilities** Except as otherwise set forth in Section 3.5 of the Saturn Disclosure Letter, neither Saturn nor its Subsidiaries has any liability, indebtedness, obligation, expense, claim, deficiency, guaranty or endorsement of any type, whether accrued, absolute, contingent, matured, unmatured or other (whether or not required to be reflected in the Saturn Financials), which individually or in the aggregate (i) has not been reflected in the Saturn Balance Sheet or the footnotes related thereto, (ii) has not arisen in the ordinary course of business consistent with past practices since the Saturn Balance Sheet, (iii) (a) arose before the date of the Saturn Balance Sheet (b) arose in the ordinary course of business consistent with past practices (c) were not required by GAAP to be on the Saturn Balance Sheet and (d) were not material to Saturn in amount individually or in the aggregate, or (iv) arose before the date of the Saturn Balance Sheet pursuant to the express terms of Saturn Material Contracts and were not required by GAAP to be on the Saturn Balance Sheet.

**3.6 Absence of Certain Changes or Events** Since the date of the Saturn Balance Sheet through the date hereof, except as set forth on Section 3.6 of the Saturn Disclosure Letter, Saturn has conducted its business only in the ordinary course of business consistent with past practice and there has not been: (i) any Material Adverse Change to Saturn, (ii) any declaration, setting aside or payment of any dividend on, or other distribution (whether in cash, stock or property) in respect of, any of Saturn's or any of its Subsidiaries' capital stock, or any purchase, redemption or other acquisition by Saturn or any of its Subsidiaries of any of Saturn's capital stock or any other securities of Saturn or its Subsidiaries or any options, warrants, calls or rights to acquire any such shares or other securities except for repurchases from Employees following their termination pursuant to the terms of their pre-existing stock option or purchase agreements, (iii) any split, combination or reclassification of any of Saturn's or any of its Subsidiaries' capital stock, (iv) with respect to any individual, any granting by Saturn or any of its Subsidiaries of any material increase in compensation or fringe benefits, except for normal increases of cash compensation in the ordinary course of business consistent with past practice (other than to members of the Saturn Board or executive officers of Saturn), or any payment by Saturn or any of its Subsidiaries of any bonus, except for bonuses made in the ordinary course of business consistent with past practice (other than to members of the Saturn Board or executive officers of Saturn), or any granting by Saturn or any of its Subsidiaries of any material increase in severance or termination pay or any entry by Saturn or any of its Subsidiaries into, or material modification or amendment of, any currently effective employment, severance, termination or indemnification agreement or any agreement the benefits of which are contingent or the terms of which are materially altered upon the occurrence of a transaction involving Saturn of the nature contemplated hereby, (v) entry by Saturn or any of its Subsidiaries into any licensing or other agreement with regard to the disposition of any material Intellectual Property other than licenses, distribution agreements, advertising agreements, sponsorship agreements or merchant program agreements entered into in the ordinary course of business consistent with past practice, (vi) any material change by Saturn in its accounting methods, principles or practices, except as required by concurrent changes in GAAP or by the SEC, (vii) any material revaluation by Saturn of any of its assets, including, without limitation, writing down the value of capitalized inventory or writing off notes or accounts receivable other than in the ordinary course of business consistent with past practice, (viii) any communication from Nasdaq with respect to the delisting of the Saturn Common Stock, (ix) any cancellation by Saturn or any of its Subsidiaries of any debts or waiver of any claims or rights of material value, (x) any sale, transfer or other disposition outside of the ordinary course of business of any properties or assets (real, personal or mixed, tangible or intangible) by Saturn or any of its Subsidiaries, or (xi) any agreement, whether in writing or otherwise, to take any action described in this section by Saturn or any of its Subsidiaries.

Table of Contents3.7 Taxes(a) Tax Returns and Audits.

(i) Saturn and each of its Subsidiaries have prepared and timely filed all material required Tax Returns relating to any and all Taxes concerning or attributable to Saturn, its Subsidiaries or their respective operations, and such Tax Returns, as of the time of filing were true and correct in all material respects and have been completed in accordance with applicable law.

(ii) Saturn and each of its Subsidiaries have timely paid all material Taxes required to be paid. With respect to their employees, Saturn and each of its Subsidiaries have timely paid or withheld all federal and state income taxes, Federal Insurance Contribution Act, Federal Unemployment Tax Act and other material Taxes required to be paid or withheld. Furthermore, any such amounts withheld by Saturn and each of its Subsidiaries with respect to their employees have been timely paid over to the appropriate Taxing authority.

(iii) Neither Saturn nor any of its Subsidiaries has been delinquent in the payment of any material Tax, nor is there any material Tax deficiency outstanding, assessed or proposed against Saturn or any of its Subsidiaries, nor has Saturn or any of its Subsidiaries executed any waiver of any statute of limitations on or extending the period for the assessment or collection of any material Tax.

(iv) No audit or other examination of any Tax Return of Saturn or any of its Subsidiaries is presently in progress, nor has Saturn or any of its Subsidiaries been notified of any request for such an audit or other examination. No adjustment relating to any Tax Return filed by Saturn or any of its Subsidiaries has been proposed formally or, to the knowledge of Saturn, informally by any Tax authority to Saturn, any of its Subsidiaries or any representative thereof. Neither Saturn nor any of its Subsidiaries has been notified of any claim made by an authority in a jurisdiction where Saturn or its Subsidiaries do not file Tax Returns that Saturn or any of its Subsidiaries are or may be subject to taxation by that jurisdiction.

(v) Neither Saturn nor any of its Subsidiaries has any liabilities for unpaid Taxes (other than such liabilities, including without limitation any penalties or interest thereon, that are immaterial to Saturn), which have not been accrued or reserved on the Saturn Balance Sheet in accordance with GAAP, and neither Saturn nor any of its Subsidiaries has incurred any liability for Taxes since the date of the Saturn Balance Sheet other than in the ordinary course of business.

(vi) Neither Saturn nor any of its Subsidiaries has (a) ever been a member of an affiliated group (within the meaning of Code §1504(a)) filing a consolidated federal income Tax Return (other than a group the common parent of which was Saturn), (b) ever been a party to any Tax sharing, indemnification or allocation agreement, nor does Saturn or any of its Subsidiaries owe any amount under any such agreement and (c) any liability for the Taxes of any person (other than Saturn or any of its Subsidiaries) under Treas. Reg. § 1.1502-6 (or any similar provision of state, local or foreign law), as a transferee or successor, by contract, or otherwise and (d) ever been a party to any joint venture, partnership or other agreement that to the knowledge of Saturn could be treated as a partnership for Tax purposes.

(vii) Neither Saturn nor any of its Subsidiaries has constituted either a "distributing corporation" or a "controlled corporation" in a distribution of stock intended to qualify for tax-free treatment under Section 355 of the Code (x) in the two years prior to the date of this Agreement or (y) in a distribution that otherwise could constitute part of a "plan" or "series of related transactions" within the meaning of Section 355(e) of the Code in conjunction with the Merger.

(viii) Neither Saturn nor any of its Subsidiaries has engaged in a reportable transaction under Treas. Reg. § 1.6011-4(b) or in a transaction that is the same as or substantially similar to one of the types of transactions that the Internal Revenue Service has determined to be a tax avoidance transaction and identified by notice, regulation, or other form of published guidance as a listed transaction, as set forth in Treas. Reg. § 1.6011-4(b)(2).

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3.8 Intellectual Property Except as set forth in Section 3.8 of the Saturn Disclosure Letter:

(a) To the knowledge of Saturn, (i) the operation of the business of Saturn and each of its Subsidiaries as currently conducted, including their products and services, does not infringe or misappropriate in any material respect the Intellectual Property of any third party or constitute unfair competition or unfair trade practices under the laws of any jurisdiction, and (ii) Saturn and its Subsidiaries own or possess sufficient rights to all material Intellectual Property used in or necessary for the operation of their businesses as currently conducted

(b) Neither Saturn nor any of its Subsidiaries have received any written notice from any third party as of the date hereof, and, to the knowledge of Saturn, there is no other assertion or pending threat from any third party, that the operation of the business of Saturn or any of its Subsidiaries as currently conducted, or any of their products or services, infringes or misappropriates the Intellectual Property of any third party or constitutes unfair competition or unfair trade practices under the laws of any jurisdiction. Neither Saturn nor any of its Subsidiaries have brought or have been a party to any suits, arbitrations or other adversarial proceedings with respect to a third party's Intellectual Property that remain unresolved.

(c) To the knowledge of Saturn, as of the date hereof, no person is infringing or misappropriating any material Intellectual Property owned or exclusively licensed by Saturn or any of its Subsidiaries. Neither Saturn nor any of its Subsidiaries have brought or have been a party to any suits, arbitrations or other adversarial proceedings with respect to their Intellectual Property against any third party that remain unresolved

(d) Saturn and its Subsidiaries are not subject to any judgment, order, writ, injunction or decree of any court or any Federal, state, local, foreign or other governmental department, commission, board, bureau, agency or instrumentality, domestic or foreign, or any arbitrator, which restricts or impairs the use of any material Intellectual Property of Saturn or its Subsidiaries. The Intellectual Property owned or exclusively licensed by Saturn is free and clear of any Liens.

(e) To the knowledge of Saturn, Saturn and each of its Subsidiaries are in compliance in all material respects with, and have not breached in any material respect any term of any contracts, licenses or other agreements in which Saturn and its Subsidiaries have granted or received any Intellectual Property ("Saturn IP Agreements"). To the knowledge of Saturn, all third parties to such Saturn IP Agreements are in compliance in all material respects with, and have not breached in any material respect, any of their terms

(f) The Merger will not result in any breach of or constitute a default (or an event that with notice or lapse of time or both would become a default) under, or impair Saturn's rights or obligations or alter the rights or obligations of any third party under, or give to others any rights of termination, amendment, acceleration or cancellation of, or result in the creation of a Lien on any of the properties or assets of Saturn or any of its Subsidiaries pursuant to, any material Saturn IP Agreements. The Merger will not result in the obligation for Saturn or its Subsidiaries to pay any consideration, royalties or other amounts to any third party in excess of those amounts otherwise owed by Saturn or its Subsidiaries immediately prior to the Merger.

(g) The Merger will not, as a result of any contracts, licenses or other agreements entered into by Saturn, result in: (i) Saturn or its Subsidiaries (other than the Subs, but only to the extent existing prior to the Merger), being bound by any material non-compete, exclusivity obligation or other restriction on the operation of its business, or (ii) Saturn or its Subsidiaries (other than the Subs, but only to the extent existing prior to the Merger) granting to any third party any rights or licenses to any material Intellectual Property of Saturn or any affiliate of Saturn (including without limitation a covenant not to sue).

(h) To the knowledge of Saturn, no Governmental Entity, university, college, other educational institution or research center has any claim or right in or to any product or Intellectual Property

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owned or exclusively licensed by Saturn. Saturn has not entered into any agreement granting any such rights.

(i) Saturn does not incorporate into, combine with, or distribute in conjunction with any of its products or services any software that is subject to any "copyleft" or other obligation or condition under any "open source" or similar license, such as the GNU Public License (GLP), that requires or conditions the distribution of such product or services on the disclosure, licensing or distribution of any Saturn source code

**3.9 Compliance; Permits**

(a) **Compliance**. Neither Saturn nor any of its Subsidiaries is, in any material respect, in conflict with, or in default or in violation of any applicable Legal Requirement applicable to Saturn or any of its Subsidiaries or by which Saturn or any of its Subsidiaries or any of their respective businesses or properties is, or Saturn believes is reasonably likely to be, bound or affected, except, in each case, or in the aggregate, for conflicts, violations and defaults that would not have a Material Adverse Change to Saturn. As of the date hereof, no investigation or review by any Governmental Entity is pending or, to the knowledge of Saturn, has been threatened in a writing delivered to Saturn or any of its Subsidiaries, against Saturn or any of its Subsidiaries. There is no judgment, injunction, order or decree binding upon Saturn or any of its Subsidiaries which has or would reasonably be expected to have the effect of prohibiting or impairing any business practice of Saturn or any of its Subsidiaries, any acquisition of property by Saturn or any of its Subsidiaries or the conduct of business by Saturn and its Subsidiaries as currently conducted, except as would not have a Material Adverse Change to Saturn.

(b) **Permits**. Saturn and its Subsidiaries hold, to the extent legally required, all Permits that are required for the operation of the business of Saturn (collectively, "Saturn Permits"), except where the failure to hold such Permits would not have a Material Adverse Change to Saturn. As of the date hereof, no suspension or cancellation of any of the Saturn Permits is pending or, to the knowledge of Saturn, threatened. Saturn and its Subsidiaries are in compliance with the terms of the Saturn Permits, except as would not have a Material Adverse Change to Saturn.

**3.10 Litigation**. Except as set forth in Section 3.10 of the Saturn Disclosure Letter, as of the date hereof, there are no material claims, suits, actions or proceedings pending or, to the knowledge of Saturn, threatened against Saturn or any of its Subsidiaries, before any court, governmental department, commission, agency, instrumentality or authority, or any arbitrator.

**3.11 Brokers' and Finders' Fees**. Except for fees payable to Thomas Weisel Partners LLC pursuant to an engagement letter dated February 16, 2005, a copy of which has been provided to Nova, Saturn has not incurred, nor will it incur, directly or indirectly, any liability for brokerage or finders' fees or agents' commissions or any similar charges in connection with this Agreement or any transaction contemplated hereby, and Saturn has not entered into any indemnification agreement or arrangement with any person in connection with this Agreement and the transactions contemplated hereby. An itemized good faith estimate of the fees and expenses of any accountant, broker, financial advisor, consultant, legal counsel or other person retained by Saturn in connection with this Agreement or the transactions contemplated hereby incurred or to be incurred by Saturn in connection with this Agreement and the transactions contemplated hereby (including any agreement or understanding with respect to such agreement or understanding, whether written or oral) is set forth in Section 3.11 of the Saturn Disclosure Letter, and all such fees are, and shall be, reasonable and customary in nature.

**3.12 Transactions with Affiliates**. Except as set forth in the Saturn SEC Reports, since the date of Saturn's last proxy statement filed with the SEC, no event has occurred as of the date hereof that would be required to be reported by Saturn pursuant to Item 404 of Regulation S-K promulgated by the SEC. Section 3.12 of the Saturn Disclosure Letter identifies each person who is an "affiliate" (as that term is used in Rule 145 promulgated under the Securities Act) of Saturn as of the date hereof.

Table of Contents**3.13 *Saturn Employee Benefit Plans***

(a) **Definitions** For purposes of this Agreement, the following terms shall have the meanings set forth below:

(i) “**Saturn Employee**” shall mean any current or former or retired employee, consultant or director of Saturn or any Saturn ERISA Affiliate.

(ii) “**Saturn Employee Agreement**” shall mean each management, employment, severance, consulting, relocation, repatriation, expatriation, visa, work permit or other similar agreement, contract or understanding between Saturn or any Saturn ERISA Affiliate and any Saturn Employee, except to the extent a Saturn Employee Agreement provides for “at-will” employment and does not provide for severance payments or benefits.

(iii) “**Saturn Employee Plans**” shall mean each plan, program, policy, practice, contract, agreement or other arrangement providing for compensation, severance, termination pay, deferred compensation, performance awards, stock or stock-related awards, fringe benefits or other employee benefits or remuneration of any kind, whether written or unwritten or otherwise, funded or unfunded, including without limitation, each “employee benefit plan,” within the meaning of Section 3(3) of ERISA which is or has been maintained, contributed to, or required to be contributed to, by Saturn or any Subsidiary of Saturn or any Saturn ERISA Affiliate for the benefit of a Saturn Employee, or with respect to which Saturn or any Saturn ERISA Affiliate has or may have any liability or obligation.

(iv) “**Saturn ERISA Affiliate**” shall mean any Saturn Subsidiary or other person or entity under common control with Saturn or any Saturn Subsidiaries within the meaning of Section 414(b), (c), (m) or (o) of the Code and the regulations issued thereunder.

(b) **Documents**. Saturn has provided or made available to Nova correct and complete copies of: (i) all documents embodying each Saturn Employee Plan and each Saturn Employee Agreement including (without limitation) all amendments thereto and all related trust documents, administrative service agreements, group annuity contracts, group insurance contracts, and policies pertaining to fiduciary liability insurance covering the fiduciaries for each Saturn Employee Plan; (ii) the most recent annual actuarial valuations, if any, prepared for each Saturn Employee Plan; (iii) the three (3) most recent annual reports (Form Series 5500 and all schedules and financial statements attached thereto), if any, required under ERISA or the Code in connection with each Saturn Employee Plan; (iv) if the Saturn Employee Plan is funded, the most recent annual and periodic accounting of Saturn Employee Plan assets; (v) the most recent summary plan description together with the summary(ies) of material modifications thereto, if any, required under ERISA with respect to each Saturn Employee Plan; (vi) all IRS determination, opinion, notification and advisory letters, and all applications and correspondence to or from the IRS or the DOL with respect to any such application or letter; (vii) all communications material to any Saturn Employee or Saturn Employees relating to any Saturn Employee Plan and any proposed Saturn Employee Plans, in each case, relating to any amendments, terminations, establishments, increases or decreases in benefits, acceleration of payments or vesting schedules or other events which would result in any material liability to Saturn; (viii) all correspondence to or from any Governmental Entity relating to any Saturn Employee Plan; (ix) all model COBRA forms and related notices (or such forms and notices as required under comparable law); (x) the three (3) most recent plan years discrimination tests for each Saturn Employee Plan; and (xi) all registration statements, annual reports (Form 11-K and attachments thereto) and prospectuses prepared in connection with each Saturn Employee Plan. Neither Saturn or any Saturn ERISA Affiliate has any plan or commitment to establish any new Saturn Employee Plan or Saturn Employee Agreement, to modify any Saturn Employee Plan or Saturn Employee Agreement (except to the extent required by law or to conform any such Saturn Employee Plan or Saturn Employee Agreement to the requirements of any applicable law, in each case as previously disclosed to Nova in writing, or as required by this Agreement), or to adopt or enter into any Saturn Employee Plan or Saturn Employee Agreement.

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(c) *Saturn Employee Plan Compliance*. Except as would not result in a Material Adverse Change to Saturn, Saturn and its Saturn ERISA Affiliates have performed all obligations required to be performed by them under, are not in default or violation of, and have no knowledge of any default or violation by any other party to each Saturn Employee Plan, and each Saturn Employee Plan has been established and maintained in accordance with its terms and in compliance with all applicable laws, statutes, orders, rules and regulations, including but not limited to ERISA or the Code. Any Saturn Employee Plan intended to be qualified under Section 401(a) of the Code and each trust intended to qualify under Section 501(a) of the Code (i) has obtained a determination letter or opinion from the IRS with respect to all Tax law changes prior to the Economic Growth and Tax Relief Reconciliation Act of 2001 to the effect that such Saturn Employee Plan is qualified under Sections 401(a) and 501(a), respectively, of the Code, and no such determination letter has been revoked (or has revocation been threatened) No “prohibited transaction,” within the meaning of Section 4975 of the Code or Sections 406 and 407 of ERISA, and not otherwise exempt under Section 408 of ERISA, has occurred with respect to any Saturn Employee Plan. There are no actions, suits or claims pending (other than routine claims for benefits), or, to the knowledge of Saturn, threatened or reasonably anticipated (other than routine claims for benefits) against any Saturn Employee Plan or against the assets of any Saturn Employee Plan. Each Saturn Employee Plan can be amended, terminated or otherwise discontinued after the Effective Time in accordance with its terms, without material liability to Nova, Saturn or any of its Saturn ERISA Affiliates (other than ordinary administration expenses). There are no audits, inquiries or proceedings pending or, to the knowledge of Saturn or any Saturn ERISA Affiliates, threatened by the IRS or DOL, or any other Governmental Entity with respect to any Saturn Employee Plan. Neither Saturn nor any Saturn ERISA Affiliate is subject to any penalty or tax with respect to any Saturn Employee Plan under Section 502(i) of ERISA or Sections 4975 through 4980 of the Code. Saturn and each Saturn ERISA Affiliate have timely made all contributions and other payments required by and due under the terms of each Saturn Employee Plan, in all material respects.

(d) *No Pension or Welfare Plans*. Neither Saturn nor any Saturn ERISA Affiliate has ever maintained, established, sponsored, participated in, or contributed to, any (i) Saturn Employee Plan which is a Pension Plan and is subject to Title IV of ERISA or Section 412 of the Code, (ii) Pension Plan which is a “multiemployer plan,” as defined in Section 3(37) of ERISA, (iii) “multiple employer plan” as defined in ERISA or the Code, or (iv) a “funded welfare plan” within the meaning of Section 419 of the Code. No Saturn Employee Plan provides health benefits that are not fully-insured through an insurance contract.

(e) *No Post-Employment Obligations*. Except as set forth in Section 3.13(e) of the Saturn Disclosure Letter, no Saturn Employee Plan provides, or reflects or represents any liability to provide post-termination or retiree welfare benefits to any person for any reason, except as may be required by COBRA or other applicable statute, and neither Saturn nor any Saturn ERISA Affiliate has ever represented, promised or contracted (whether in oral or written form) to any Saturn Employee (either individually or to Saturn Employees as a group) or any other person that such Saturn Employee(s) or other person would be provided with post-termination or retiree welfare benefits, except to the extent required by statute.

(f) *Health Care Compliance*. Neither Saturn nor any Saturn ERISA Affiliate has, prior to the Effective Time and in any material respect, violated any of the health care continuation requirements of COBRA, the requirements of the Health Insurance Portability and Accountability Act of 1996, or any similar provisions of state law applicable to its Saturn Employees.

(g) *Executive Loans*. To the knowledge of Saturn and any Saturn ERISA Affiliate, neither Saturn nor any Saturn ERISA Affiliate has violated Section 402 of SOX.

(h) *Effect of Transaction*

(i) Except as set forth on Section 3.13(h)(i) of the Saturn Disclosure Letter, the execution of this Agreement and the consummation of the transactions contemplated hereby will not (either alone or upon the occurrence of any additional or subsequent events) constitute an event under any Saturn Employee Plan or Saturn Employee Agreement that will or may result in any payment (whether of

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severance pay or otherwise), acceleration, forgiveness of indebtedness, vesting, distribution, increase in benefits or obligation to fund benefits with respect to any Saturn Employee.

(ii) Except as set forth on Section 3.13(h)(ii) of the Saturn Disclosure Letter, no payment or benefit which will or may be made by Saturn or its Saturn ERISA Affiliates with respect to any Saturn Employee could not reasonably be deductible under 280G of the Code. There is no contract, agreement, plan or arrangement to which Saturn or any of its Saturn ERISA Affiliates is a party or by which it is bound to compensate any Saturn Employee for excise taxes paid pursuant to Section 4999 of the Code.

(i) Employment Matters. Except as would not result in a Material Adverse Change to Saturn, Saturn: (i) is in compliance with all applicable foreign, federal, state and local laws, rules and regulations respecting employment, employment practices, terms and conditions of employment and wages and hours, in each case, with respect to Saturn Employees; (ii) has withheld and reported all amounts required by law or by agreement to be withheld and reported with respect to wages, salaries, and all other payments to Saturn Employees; and (iii) is not liable for any payment to any trust or other fund governed by or maintained by or on behalf of any Governmental Entity, with respect to unemployment compensation benefits, social security or other benefits or obligations for Saturn Employees (other than routine payments to be made in the normal course of business and consistent with past practice). Except as would not result in a Material Adverse Change to Saturn, neither Saturn nor any Saturn ERISA Affiliate has or reasonably anticipates any direct or indirect material liability with respect to any misclassification of any person as an independent contractor rather than as an employee, or with respect to any employee leased from another employer.

(j) Labor. No work stoppage or labor strike against Saturn or any Saturn ERISA Affiliate is pending or, to the knowledge of Saturn, threatened or reasonably anticipated. Saturn does not know of any activities or proceedings of any labor union to organize any Saturn Employees. Except as set forth in Schedule 3.13(j), there are no actions, suits, claims, labor disputes or grievances pending, or, to the knowledge of Saturn, threatened or reasonably anticipated relating to any labor, safety or discrimination matters involving any Saturn Employee, including, without limitation, charges of unfair labor practices or discrimination complaints, which, if adversely determined, would, individually or in the aggregate, result in a Material Adverse Change to Saturn. Neither Saturn nor any of its Subsidiaries has engaged in any unfair labor practices within the meaning of the National Labor Relations Act. Except as set forth in Schedule 3.13(j), Saturn is not presently, nor has it been in the past, a party to, or bound by, any collective bargaining agreement or union contract with respect to Saturn Employees and no collective bargaining agreement is being negotiated with respect to Saturn Employees. Neither Saturn nor any of its Subsidiaries have incurred any material liability or material obligation under the Worker Adjustment and Retraining Notification Act of 1988, as amended, or any similar state or local law which remains unsatisfied.

#### 3.14 Title to Properties

(a) Properties. Neither Saturn nor any of its Subsidiaries owns any real property. Section 3.14 of the Saturn Disclosure Letter sets forth a list of all real property currently leased, subleased, licensed, used or occupied by Saturn or any of its Subsidiaries, the name of the lessor, the date of the lease and each amendment thereto and the aggregate annual rental and/or other fees payable under any such lease. All leases material to Saturn are in full force and effect, are valid and effective in accordance with their respective terms, and there is not, under any of such leases, any existing material default or event of material default (or event which with notice or lapse of time, or both, would constitute a material default) by Saturn or any of its Subsidiaries.

(b) Valid Title. Saturn and each of its Subsidiaries has good and valid title to, or, in the case of leased properties and assets, valid leasehold interests in, all of its tangible properties and assets, real, personal and mixed, used or held for use in its business, free and clear of any Liens except for Liens imposed by law in respect of obligations which are owned with respect to Taxes that are not yet due, being contested in good faith, or for which an adequate reserve has been provided for on the Saturn Financials,

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except for such Liens which are not material in character, amount or extent, and which do not materially detract from the value, or materially interfere with the present use, of the property subject thereto or affected thereby, and except for Liens with respect to properties and assets that are immaterial to Saturn and its subsidiaries taken as a whole.

3.15 Environmental Matters

(a) Hazardous Material. Except as would not result in a Material Adverse Change to Saturn or its Subsidiaries, no underground storage tanks and no amount of any substance that has been designated by any Governmental Entity or by applicable federal, state or local law to be a Hazardous Material are present, as a result of the actions of Saturn or any of its Subsidiaries or any affiliate of Saturn, or, to the knowledge of Saturn, as a result of any actions of any third party or otherwise, in, on or under any property, including the land and the improvements, ground water and surface water thereof, that Saturn or any of its Subsidiaries has at any time owned, operated, occupied or leased.

(b) Hazardous Materials Activities. Except as would not result in a Material Adverse Change to Saturn: (i) neither Saturn nor any of its Subsidiaries has transported, stored, used, manufactured, disposed of, released or exposed its employees or others to Hazardous Materials in violation of any law in effect on or before the Closing Date and (ii) neither Saturn nor any of its Subsidiaries has conducted any Hazardous Material Activities in violation of any rule, regulation, treaty or statute promulgated by any Governmental Entity in effect prior to or as of the date hereof to prohibit, regulate or control Hazardous Materials or any Hazardous Material Activity.

3.16 Contracts

(a) Material Contracts. For purposes of this Agreement, “**Saturn Material Contract**” shall mean:

(i) any “material contracts” (as such term is defined in Item 601(b)(10) of Regulation S-K of the SEC) with respect to Saturn and its Subsidiaries;

(ii) any agreement of indemnification or any guaranty of third parties other than any agreement of indemnification entered into in connection with the sale or license of services or hardware or software products in the ordinary course of business;

(iii) any Contract containing any covenant (A) limiting in any respect the right of Saturn or any of its Subsidiaries to engage in any line of business, to make use of any Intellectual Property or compete with any person in any line of business, (B) granting any exclusive rights, (C) granting any person “Most Favored Nations” or similar status, or (D) otherwise restricting the right of Saturn and its Subsidiaries to sell, distribute or manufacture any products or services or to purchase or otherwise obtain any software, components, parts or subassemblies in a manner that would be reasonably likely to have a material adverse effect on the business of Saturn;

(iv) any Contract relating to the disposition or acquisition by Saturn or any of its Subsidiaries after the date of this Agreement of a material amount of assets not in the ordinary course of business or pursuant to which Saturn or any of its Subsidiaries has any material ownership interest in any other person or other business enterprise other than Saturn’s Subsidiaries;

(v) any dealer, distributor or joint marketing agreement, under which Saturn or any of its Subsidiaries have continuing obligations or costs in excess of \$250,000 per year, to jointly market any product, technology or service, and which may not be canceled without penalty upon notice of ninety (90) days or less; or any agreement pursuant to which Saturn or any of its Subsidiaries have jointly developed or have continuing obligations to jointly develop any product or Intellectual Property that will not be exclusively owned by Saturn or any of its Subsidiaries, or any joint venture agreement;

(vi) any Contract to license or provide source code to any third party for any product or technology that is material to Saturn and its Subsidiaries taken as a whole, other than any such Contracts entered into in the ordinary course of business;

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(vii) any Contract (A) containing any support or maintenance obligation on the part of Saturn or any of its Subsidiaries outside of the ordinary course of business consistent with past practice or (B) containing any service obligation or cost to deliver services on the part of Saturn or any of its Subsidiaries in excess of \$500,000 after the date hereof, other than those obligations that are terminable by Saturn or any of its Subsidiaries on no more than ninety (90) days notice without liability or financial obligation to Saturn or its Subsidiaries after or with respect to such termination (but excluding any Saturn Employee Agreement);

(viii) any Contract to sell or distribute any of Saturn's products, services or technology, except agreements with distributors or sales representative in the ordinary course of business consistent with past practice;

(ix) any mortgages, indentures, guarantees, loans or credit agreements, security agreements or other Contracts relating to the borrowing of money or extension of credit, other than accounts receivables and payables in the ordinary course of business;

(x) (A) any settlement agreement entered into within five (5) years prior to the date of this Agreement relating to Intellectual Property, and (B) any settlement agreement not relating to Intellectual Property entered into within two (2) years prior to the date of this Agreement, other than (I) releases immaterial in nature or amount entered into with former employees or independent contractors of Saturn in the ordinary course of business in connection with the cessation of such employee's or independent contractor's employment with Saturn or (II) settlement agreements for cash only that do not exceed \$50,000 as to each such settlement;

(xi) any Saturn IP Agreement (other than non-exclusive out-bound licenses of Saturn's or its Subsidiaries' software products or services, or immaterial in-bound licenses, entered into in the ordinary course of business consistent with past practices); or

(xii) any Contract, or group of Contracts with a person (or group of affiliated persons), the termination or breach of which would be reasonably expected to have a Material Adverse Change to Saturn

(b) Schedule Section 3.16(b) of the Saturn Disclosure Letter sets forth a list of all Saturn Material Contracts to which Saturn or any of its Subsidiaries is a party or is bound by as of the date hereof which are described in Sections 3.16(a)(i) through 3.16(a)(xii) hereof. A "Saturn Material Contract" shall be deemed to include any oral or written amendment or modification to any such Saturn Material Contract. Saturn has made available to Nova an accurate and complete copy of each Saturn Material Contract.

(c) No Breach All Saturn Material Contracts are valid and in full force and effect except to the extent they have previously expired in accordance with their terms or if the failure to be in full force and effect, individually or in the aggregate, would not reasonably be expected to have a Material Adverse Change to Saturn. Neither Saturn nor any of its Subsidiaries, nor to the knowledge of Saturn, the other party thereto, has violated any provision of, or committed or failed to perform any act which, with or without notice, lapse of time or both would constitute a breach or default under the provisions of, any Saturn Material Contract, except in each case for those breaches and defaults which, individually or in the aggregate, would not reasonably be expected to have a Material Adverse Change to Saturn.

3.17 Disclosure None of the information supplied or to be supplied by or on behalf of Saturn or the Subs for inclusion or incorporation by reference in the Registration Statement will, at the time the Registration Statement becomes effective under the Securities Act, contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they are made, not misleading. None of the information supplied or to be supplied by or on behalf of Saturn and the Subs for inclusion or incorporation by reference in the Prospectus/ Proxy Statement, will, at the time the Prospectus/ Proxy Statement is mailed to the stockholders of Nova, at the time of the Nova Stockholders' Meeting (as defined in Section 5.2(a)) or as of the Effective Time, contain any untrue statement of a material fact or

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omit to state any material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they are made, not misleading. The Prospectus/ Proxy Statement will comply as to form in all material respects with the provisions of the Exchange Act and the rules and regulations promulgated by the SEC thereunder. Notwithstanding the foregoing, no representation or warranty is made by Saturn with respect to statements made or incorporated by reference therein about Nova supplied by Nova for inclusion or incorporation by reference in the Registration Statement or the Prospectus/ Proxy Statement.

3.18 *Board Approval.* The Saturn Board has, by resolutions duly adopted by unanimous vote at a meeting of all Directors duly called and held and not subsequently rescinded or modified in any way (the “**Saturn Board Approval**”) (i) determined that the Merger is fair to, and in the best interests of, Saturn and its stockholders and declared this Agreement and the Merger to be advisable, and (ii) approved this Agreement and the transactions contemplated thereby, including the Merger, and (iii) recommended that the stockholders of Saturn approve the Stock Issuance, the Financing and the Option Assumption (as such terms are defined in Section 5.2(b))

3.19 *Fairness Opinion.* The Saturn Board has received a written opinion from Thomas Weisel Partners LLC, dated as of May 9, 2005, in customary form to the effect that, as of such date, the Merger Consideration is fair, from a financial point of view, to the Saturn stockholders, and has delivered to Nova a copy of such opinion.

3.20 *Insurance.* Saturn and each of its Subsidiaries maintain insurance policies (including fire and casualty, general liability, business interruption, product liability and sprinkler and water damage insurance policies) and/or fidelity bonds covering its assets, business, equipment, properties, operations, and the Saturn Employees (collectively, the “**Saturn Insurance Policies**”). Section 3.20 of the Saturn Disclosure Letter lists all such Insurance Policies and includes for each such Insurance Policy, the amount of the annual premium and the maximum coverage amounts per incident and per year. There is no claim by Saturn or any of its Subsidiaries pending under any of the Insurance Policies as to which coverage has been questioned, denied or disputed by the underwriters of such policies or bonds. All premiums due and payable under all such Insurance Policies have been paid, and Saturn and each of its Subsidiaries, as the case may be, is otherwise in compliance with the terms of such Insurance Policies. Saturn has not made any untrue statement about itself or its business in any application for insurance. All Insurance Policies remain in full force and effect, and neither Saturn nor any of its Subsidiaries has knowledge of any threatened termination of, or premium increase with respect to, any such Insurance Policies

3.21 *Rights Plan.* Saturn has taken all necessary action so that (i) Nova shall not be an “Acquiring Person” under the Saturn Rights Agreement and (ii) the entering into of this Agreement and the Merger and the performance of the transactions contemplated hereby will not result in the grant of any rights to any person under the Saturn Rights Agreement or enable or require the Saturn Rights to be exercised, distributed or triggered.

3.22 *Cash Consideration.* Saturn will have sufficient cash at Closing to pay the full aggregate amount of the Cash Consideration and, after doing so, will have sufficient cash to fund its operations and pay its liabilities and obligations in the ordinary course for at least twelve (12) months after the Closing. Each of the Stock Purchase Agreements, dated as of May 5, 2005, by and among Saturn and Warburg Pincus Private Equity VIII, L.P. and related entities (the “**Warburg Entities**”) is valid and in full force and effect as of the date hereof, and Saturn has taken all steps necessary in order for the condition contained therein related to the amendment to the Saturn Rights Plan to be satisfied. The purchase by the Warburg Entities of (i) an aggregate of 3,537,736 shares of Saturn Common Stock for an aggregate purchase price of \$15,000,000.64, and (ii) warrants to purchase an aggregate of 863,236 shares of Saturn Common Stock for an aggregate purchase price of \$107,904.50 has been consummated.

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**ARTICLE IV**  
**CONDUCT PRIOR TO THE EFFECTIVE TIME**

**4.1 Conduct of Business by Nova**

(a) **Ordinary Course**. During the period from the date hereof and continuing until the earlier of the termination of this Agreement pursuant to its terms or the Effective Time, Nova shall and shall cause each of its Subsidiaries to, except as otherwise expressly contemplated by this Agreement or to the extent that Saturn shall otherwise consent in writing, use commercially reasonable efforts to (i) carry on its business in the usual, regular and ordinary course, in substantially the same manner as heretofore conducted and in compliance in all material respects with all applicable laws and regulations, (ii) in the ordinary course of business consistent with past practice, pay its debts and pay or perform other material obligations and, when due, pay its Taxes (subject to good faith disputes over such debts, Taxes or obligations), (iii) preserve intact in all material respects its present business organization, (iv) keep available the services of its present executive officers and other key employees (as reasonably determined by Nova), and (v) preserve in the ordinary course of business consistent with past practice its relationships with customers, suppliers, licensors, licensees, and others with which it has business dealings. In addition, except as prohibited by applicable law, Nova shall promptly notify in writing Saturn of any material adverse effect involving its business or operations.

(b) **Required Consent**. In addition, without limiting the generality of Section 4.1(a), except as permitted by the terms of this Agreement, as required by applicable law, or as set forth on Schedule 4.1(b) of the Nova Disclosure Letter, without the prior written consent of Saturn, which consent shall not be unreasonably withheld, during the period from the date hereof and continuing until the earlier of the termination of this Agreement pursuant to its terms or the Effective Time, Nova shall not do any of the following, and shall not permit any of its Subsidiaries to do any of the following:

(i) Enter into any new line of business;

(ii) Declare, set aside or pay any dividends on or make any other distributions (whether in cash, stock, equity securities or property) in respect of any capital stock or split, combine or reclassify any capital stock or issue or authorize the issuance of any other securities in respect of, in lieu of or in substitution for any capital stock, other than (A) any such transaction by a wholly-owned Subsidiary of it that remains a wholly-owned Subsidiary of it after consummation of such transaction, in the ordinary course of business consistent with past practice and (B) repurchases of unvested shares at cost in connection with the termination of the employment relationship with any employee pursuant to stock option or purchase agreements in effect on the date hereof;

(iii) Purchase, redeem or otherwise acquire, directly or indirectly, any shares of its capital stock or the capital stock of its Subsidiaries, except repurchases of unvested shares at cost in connection with the termination of the employment relationship with any employee pursuant to stock option or purchase agreements in effect on the date hereof;

(iv) Issue, deliver, sell, authorize, pledge or otherwise encumber any shares of capital stock, Voting Debt or any securities convertible into shares of capital stock or Voting Debt, or subscriptions, rights, warrants or options to acquire any shares of capital stock or Voting Debt or any securities convertible into shares of capital stock or Voting Debt, or enter into other agreements or commitments of any character obligating it to issue any such securities or rights, except that (X) Nova may issue shares of Nova Common Stock (and the Nova Rights issuable upon the issuance of such shares): (1) upon the exercise of Nova Options, warrants or other rights of Nova existing on the date hereof in accordance with their present terms; or (2) pursuant to the Nova ESPP; and (Y) Nova may, in the ordinary course of business and consistent with past practices, grant Nova Options (other than those granted under the Nova ESPP) to purchase shares of Nova Common Stock to any newly hired employees of Nova, and may, in the ordinary course of business and consistent with past practices, grant Nova Options (other than those granted under the Nova ESPP) to purchase up to 250,000 shares of Nova Common Stock (in the aggregate) to non-executive

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officer employees of Nova in connection with Nova's 2005 annual review, in both cases with an exercise price at least equal to the then fair market value of the Nova Common Stock;

(v) Cause, permit or propose any amendments to the Nova Charter Documents or any of the Subsidiary Charter Documents of Nova's Subsidiaries;

(vi) Acquire or agree to acquire by merging or consolidating with, or by purchasing any equity or voting interest in or a portion of the assets of, or by any other manner, any business or any person or division thereof, or otherwise acquire or agree to acquire any assets outside of the ordinary course of business consistent with past practice;

(vii) Enter into any binding agreement, agreement in principle, letter of intent, memorandum of understanding or similar agreement with respect to any joint venture, strategic partnership, alliance or similar arrangement; *provided, however,* that this clause (vii) shall not prohibit Nova from entering into, in the ordinary course of business consistent with past practice (i) original equipment manufacturer agreements, (ii) agreements with end-user customers or (iii) agreements with distributors or sales representatives;

(viii) Sell, lease, license, encumber or otherwise dispose of any properties or assets except (A) sales of inventory in the ordinary course of business consistent with past practice, (B) the sale, lease or disposition (other than through licensing) of property or assets which are not material, individually or in the aggregate, to the business of Nova and its Subsidiaries, (C) the sale of goods or non-exclusive licenses of Intellectual Property in the ordinary course of business and in a manner consistent with past practice or (D) dispositions of other immaterial assets in the ordinary course of business and in a manner consistent with past practice;

(ix) Make any loans, advances or capital contributions to, or investments in, any other person, other than employee advances for travel and entertainment expenses or draws against commissions under existing employee agreements made in the ordinary course of business consistent with past practices provided such employee advances are in compliance with applicable law;

(x) Except as required by GAAP or the SEC as concurred in by its independent auditors, make any material change in its methods or principles of accounting since the date of the Nova Balance Sheet;

(xi) Make or change any material Tax election or adopt or change any accounting method, enter into any closing agreement, settle or compromise any claim or assessment in respect of Taxes or consent to any extension or waiver of any limitation period with respect to any claim or assessment for Taxes;

(xii) Except as may be required by GAAP or the SEC, revalue any of its assets or make any change in accounting methods, principles or practices;

(xiii) (A) Pay, discharge, settle or satisfy any material claims (including any Tax claim), liabilities or obligations (absolute, accrued, asserted or unasserted, contingent or otherwise), or litigation (whether or not commenced prior to the date of this Agreement) other than the payment, discharge, settlement or satisfaction for money, of claims, liabilities, obligations or litigation (x) in the ordinary course of business consistent with past practice or the payment of obligations incurred in the ordinary course of business in accordance with their terms; or (y) which is required by an existing agreement on the date hereof in accordance with its terms, or (B) knowingly waive the benefits of, agree to modify in any manner, terminate, release any person from or knowingly fail to enforce any confidentiality or similar agreement to which Nova or any of its subsidiaries is a party or of which Nova or any of its Subsidiaries is a beneficiary;

(xiv) Except as set forth on Section 4.1(b)(xiv) of the Nova Disclosure Letter, take any of the following actions: (1) increase in any manner the amount of compensation or fringe benefits of, pay any bonus to or grant severance or termination pay to any Nova Employee or director of Nova or any Subsidiary of Nova (2) make any increase in or commitment to increase any Nova Employee Plan

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(including any severance plan), adopt or amend or make any commitment to adopt or amend any Nova Employee Plan or make any contribution, other than regularly scheduled contributions, to any Nova Employee Plan, (3) waive any stock repurchase rights, accelerate, amend or change the period of exercisability of Nova Options or Unvested Shares, or reprice any Nova Options or authorize cash payments in exchange for any Nova Options, (4) enter into any employment, severance, termination or indemnification agreement with any Nova Employee or enter into any collective bargaining agreement, (other than corporate indemnification agreements with new hires or promoted existing employees replacing persons in positions currently with indemnification agreements in place, offer letters and letter agreements entered into in the ordinary course of business consistent with past practice with employees who are terminable "at will" or employee agreements with employees who provide services outside of the United States if consistent with past practice and customary in such foreign locations), (5) make any material oral or written representation or commitment with respect to any material aspect of any Nova Employee Plan that is not materially in accordance with the existing written terms and provision of such Nova Employee Plan, (6) grant any stock appreciation right, phantom stock award, stock-related award or similar equity compensation performance award (whether payable in cash, shares or otherwise) to any person (including any Nova Employee), (7) enter into any agreement with any Nova Employee the benefits of which are (in whole or in part) contingent or the terms of which are materially altered in favor of the Nova Employee upon the occurrence of a transaction involving Nova of the nature contemplated hereby;

(xv) Grant any exclusive rights with respect to any Intellectual Property of such party, other than the grant of exclusive rights to custom work product created pursuant to agreements under which Nova provides professional services entered into in the ordinary course of business, provided that the grant of such exclusive rights does not extend beyond such custom work product to any Intellectual Property that is used by Nova in any Nova products or services and such custom work product is not necessary for any Nova products or services (such permitted agreements, "**Nova Custom Work Contracts**");

(xvi) Enter into or renew any Contracts containing, or otherwise subject the Final Surviving Entity or Saturn to, any non-competition, exclusivity or other similar material restrictions on Nova or the Final Surviving Entity or Saturn, or any of their respective businesses, following the Closing, provided that the foregoing shall not restrict Nova from entering into or renewing any Nova Custom Work Contracts;

(xvii) Enter into any agreement or commitment the effect of which would be to grant to a third party following the Merger any actual or potential right or license to any Intellectual Property owned by Saturn or any of its Subsidiaries (other than the Final Surviving Entity);

(xviii) Hire or offer to hire employees, other than employees to (A) fill the open positions described on Section 4.1(b)(xviii) of the Nova Disclosure Letter and (B) replace (1) any existing employees of Nova critical to the continuing operations of Nova (as reasonably determined by Nova) who leave Nova's employ after the date hereof or (2) any employees hired pursuant to clause (A) of this sentence who leaves Nova's employ after the date hereof;

(xix) Incur any indebtedness for borrowed money or guarantee any such indebtedness of another person, issue or sell any debt securities or options, warrants, calls or other rights to acquire any debt securities of Nova or any of its Subsidiaries, guarantee any debt securities of another person, enter into any "keep well" or other agreement to maintain any financial statement condition of any other person or enter into any arrangement having the economic effect of any of the foregoing;

(xx) Make or commit to make (A) any individual or series of related payments outside of the ordinary course of business, or (B) any capital expenditures in excess of \$200,000 individually and \$500,000 in the aggregate during any three month period;

(xxi) Modify, terminate or amend in any material respect any lease, sublease or Nova Material Contract (other than modifications, terminations or amendments in the ordinary course of business

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consistent with past practices with respect to Nova Material Contracts, so long as the subject matter of any such Nova Material Contract (including, without limitation, Nova Material Contracts with customers, resellers, suppliers or service providers) being so modified, terminated or amended is within the scope of the ordinary course of Nova's business), or release or assign or knowingly waive any material rights or claims thereunder;

(xxii) Enter into any Contract outside of the ordinary course of business (except as expressly permitted by this Section 4.1(b)), or any Contract requiring Nova or any of its Subsidiaries to pay specified sums in excess of an aggregate of \$500,000 under such Contract;

(xxiii) Agree in writing or otherwise to take any of the actions described in (i) through (xxii) above.

#### 4.2 Conduct of Business by Saturn

(a) Ordinary Course. During the period from the date hereof and continuing until the earlier of the termination of this Agreement pursuant to its terms or the Effective Time, Saturn shall and shall cause each of its Subsidiaries to, except as otherwise expressly contemplated by this Agreement or to the extent that Nova shall otherwise consent in writing, and except for such actions as would not be reasonably likely to cause a material adverse effect on Saturn's business or its ability to consummate the Merger, use commercially reasonable efforts to (i) carry on its business in the usual, regular and ordinary course, in substantially the same manner as heretofore conducted and in compliance in all material respects with all applicable laws and regulations, (ii) in the ordinary course of business consistent with past practice, pay its debts and pay or perform other material obligations and, when due, pay its Taxes (subject to good faith disputes over such debts, Taxes or obligations), (iii) preserve intact in all material respects its present business organization, (iv) keep available the services of its present executive officers and other key employees (as reasonably determined by Saturn), and (v) preserve in the ordinary course of business consistent with past practice its relationships with customers, suppliers, licensors, licensees, and others with which it has business dealings. In addition, except as prohibited by applicable law, Saturn shall promptly notify in writing Nova of any material adverse effect involving its business or operations.

(b) Required Consent. In addition, without limiting the generality of Section 4.2(a), except as permitted by the terms of this Agreement, as required by applicable law, or as set forth on Section 4.2(b) of the Saturn Disclosure Letter, without the prior written consent of Nova, which consent shall not be unreasonably withheld, during the period from the date hereof and continuing until the earlier of the termination of this Agreement pursuant to its terms or the Effective Time, Saturn shall not do any of the following, and shall not permit any of its Subsidiaries to do any of the following:

(i) cause, permit or propose any amendments to the Saturn Charter Documents or any of the Subsidiary Charter Documents of Saturn's Subsidiaries that would materially impair or adversely affect the ability of Saturn to consummate the transactions contemplated by this Agreement,

(ii) issue or agree to issue a material amount of its capital stock or securities convertible into its capital stock (other than pursuant to the Saturn Stock Option Plans, pursuant to convertible securities outstanding on the date hereof, in conjunction with employment or consulting arrangements, pursuant to the Financing, and pursuant to the agreements set forth on Section 4.2(b)(ii) of the Saturn Disclosure Letter);

(iii) declare, set aside or pay any dividends on or make any other distributions (whether in cash, stock, equity securities or property) in respect of any Saturn capital stock other than dividends paid in Saturn Common Stock if the Per Share Stock Portion shall be appropriately adjusted,

(iv) adopt a plan of liquidation or dissolution,

(v) purchase, redeem or otherwise acquire, directly or indirectly, shares of its capital stock or the capital stock of its Subsidiaries for an aggregate repurchase price in excess of \$5,000,000, except repurchases of unvested shares at cost in connection with the termination of the employment

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relationship with any employee pursuant to stock option or purchase agreements in effect on the date hereof;

(vi) acquire or agree to acquire by merging or consolidating with, or by purchasing any equity or voting interest in all or a portion of the assets of, or by any other manner, any business or any person or division thereof, if either the consideration to be paid is in excess of \$15,000,000 individually or \$45,000,000 in the aggregate, or if such acquisition is likely to materially delay the Merger;

(vii) except as required by GAAP or the SEC, revalue any of its assets or make any change in accounting methods, principles or practices;

(viii) cause, permit or propose any material amendment or modification to that certain Stock Purchase Agreement, dated May 5, 2005, by and among Saturn and the Warburg Entities, relating to the purchase at or immediately prior to the Closing by the Warburg Entities of an aggregate of 14,150,943 shares of Saturn Common Stock for an aggregate purchase price of \$59,999,998.32, and (ii) warrants to purchase an aggregate of 3,177,570 shares of Saturn Common Stock, or take any action that would cause the condition stated therein related to the amendment of the Saturn Rights Agreement to not be satisfied;

(ix) adopt any resolution pursuant to Section 3(c) of the Saturn Rights Agreement that is intended to treat the shares of Saturn Common Stock issued pursuant to the Merger differently under the Saturn Rights Agreement than other outstanding shares of Saturn Common Stock for purposes of the issuance of Saturn Rights in respect of such shares of Saturn Common Stock; *provided, however*, that nothing in this clause (ix) shall in any manner whatsoever limit the ability of Saturn to treat differently under the Saturn Rights Agreement shares of Saturn Common Stock beneficially owned by an "Acquiring Person," as such term is defined in the Saturn Rights Agreement; or

(x) Agree in writing or otherwise to take any of the actions described in 4.2(b)(i) through 4.2(b)(ix) above.

During the period from the date of this Agreement and continuing until the earlier of the termination of this Agreement pursuant to its terms or the Effective Time, Saturn shall notify Nova if it intends to enter into discussions with respect to the transaction described in Section 4.2(b)(ii) of the Saturn Disclosure Letter and shall provide Nova with the material terms of such transaction prior to effecting such transaction.

**4.3 Procedures for Requesting Consent** If either Nova or Saturn desire to take an action which would be prohibited pursuant to Section 4.1 or Section 4.2 without the written consent of the other party, such party may request, and such other party may grant, such consent by email or facsimile from the persons identified on Schedule 4.3 hereof.

## ARTICLE V

### ADDITIONAL AGREEMENTS

**5.1 Prospectus/ Proxy Statement; Registration Statement** As promptly as practicable after the execution of this Agreement, Saturn and Nova shall prepare, and file with the SEC, the Prospectus/ Proxy Statement relating to the necessary approvals of the stockholders of Nova and Saturn, and Saturn will prepare and file with the SEC the Registration Statement. Saturn and Nova shall provide each other with such information concerning it that may be required or appropriate for inclusion in the Prospectus/ Proxy Statement and the Registration Statement, or in any amendments or supplements thereto. Each of Saturn and Nova will respond to any comments from the SEC, will use all commercially reasonable efforts to cause the Registration Statement to be declared effective under the Securities Act as promptly as practicable after such filing and to keep the Registration Statement effective as long as is necessary to consummate the Merger and the transactions contemplated hereby. Each of Saturn and Nova will notify the other promptly upon the receipt of any comments from the SEC or its staff in connection with the filing of, or amendments or supplements to, the Registration Statement and/or the Prospectus/ Proxy

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Statement. Whenever any event occurs which is required to be set forth in an amendment or supplement to the Prospectus/ Proxy Statement and/or the Registration Statement, Saturn or Nova, as the case may be, will promptly inform the other of such occurrence and cooperate in filing with the SEC or its staff, and/or mailing to stockholders of Saturn or Nova, such amendment or supplement. Each of Saturn or Nova shall cooperate and provide the other (and its counsel) with a reasonable opportunity to review and comment on any amendment or supplement to the Registration Statement and Prospectus/ Proxy Statement prior to filing such with the SEC, and will provide each other with a copy of all such filings made with the SEC. Each of Saturn and Nova will cause the Prospectus/ Proxy Statement to be mailed to its respective stockholders at the earliest practicable time after the Registration Statement is declared effective by the SEC. Saturn shall also use all commercially reasonable efforts to take any action required to be taken by it under any applicable state securities laws in connection with the issuance of Saturn Common Stock and assumption of the Assumed Nova Options pursuant to the Merger, and Nova shall furnish any information concerning Nova and the holders of Nova Common Stock as may be reasonably requested in connection with any such action.

**5.2 Meetings of Stockholders; Board Recommendations.**

(a) **Nova Stockholders' Meeting.** Promptly after the Registration Statement is declared effective under the Securities Act, Nova will take all action necessary in accordance with Delaware Law and the Nova Charter Documents to call, hold and convene a meeting of its stockholders (the “**Nova Stockholders' Meeting**”) to consider the adoption and approval of this Agreement and approval of the Merger (the “**Required Nova Stockholder Approval**”) to be held as promptly as practicable (and in any event within 60 days) after the declaration of effectiveness of the Registration Statement. The Nova Stockholders' Meeting may also present for consideration by the Nova's stockholders: (i) the annual election of directors; and (ii) the ratification of independent auditors. Nova will use all commercially reasonable efforts to hold the Nova Stockholders' Meeting on the same date as the Saturn Stockholders' Meeting (as defined below). Nova will use all commercially reasonable efforts to solicit from its stockholders proxies in favor of the adoption and approval of this Agreement and the approval of the Merger, and will take all other action necessary or advisable to secure the vote or consent of its stockholders required by the rules of Nasdaq or Delaware Law to obtain such approvals. Notwithstanding anything to the contrary contained in this Agreement, Nova may adjourn or postpone the Nova Stockholders' Meeting to the extent necessary to ensure that any necessary supplement or amendment to the Prospectus/ Proxy Statement is provided to its stockholders in advance of a vote on the Merger and this Agreement or, if as of the time for which the Nova Stockholders' Meeting is originally scheduled (as set forth in the Prospectus/ Proxy Statement) there are insufficient shares of Nova Common Stock represented (either in person or by proxy) to constitute a quorum necessary to conduct the business of such Nova Stockholders' Meeting. Nova shall ensure that the calling, notice, convening and conduct of the Nova Stockholders' Meeting, and that all proxies solicited by it in connection with the Nova Stockholders' Meeting, are solicited and done in compliance with Delaware Law, the Nova Charter Documents, the rules of Nasdaq and all other applicable Legal Requirements. Nothing in this Section 5.2(a) shall preclude the Nova Board from complying with Rules 14d-9 and 14e-2(a) or Item 1012(a) of Regulation M-A under the Exchange Act with regard to an Acquisition Proposal (except that the Nova Board shall not be permitted to make a Change of Recommendation except as specifically provided in Section 5.4(d)).

(b) **Saturn Stockholders' Meeting.** Promptly after the Registration Statement is declared effective under the Securities Act, Saturn will take all action necessary in accordance with Delaware Law and the Saturn Charter Documents to call, hold and convene a meeting of its stockholders (the “**Saturn Stockholders' Meeting**”) to consider the issuance of Saturn Common Stock in connection with the Merger (the “**Stock Issuance**”) and the \$59,999,998.32 financing contemplated to be received by Saturn immediately prior to or simultaneously with the Effective Time (the “**Financing**,” and together with the approval for the Stock Issuance, the “**Required Saturn Stockholder Approval**”), as well as the assumption of the Nova Options in accordance with Section 1.6(e)(i) (the “**Option Assumption**”), to be held as promptly as practicable (and in any event within 60 days) after the declaration of effectiveness of the

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Registration Statement. Saturn will use all commercially reasonable efforts to hold the Saturn Stockholders' Meeting on the same date as the Nova Stockholders' Meeting. Saturn will use all commercially reasonable efforts to solicit from its stockholders proxies in favor of the Stock Issuance, the Option Assumption and the Financing and will take all other action necessary or advisable to secure the vote or consent of its stockholders required by the rules of Nasdaq or Delaware Law to obtain such approvals. Notwithstanding anything to the contrary contained in this Agreement, Saturn may adjourn or postpone the Saturn Stockholders' Meeting to the extent necessary to ensure that any necessary supplement or amendment to the Prospectus/ Proxy Statement is provided to its stockholders in advance of a vote on the Stock Issuance, the Option Assumption and Financing or, if as of the time for which the Saturn Stockholders' Meeting is originally scheduled (as set forth in the Prospectus/ Proxy Statement) there are insufficient shares of Saturn Common Stock represented (either in person or by proxy) to constitute a quorum necessary to conduct the business of such Saturn Stockholders' Meeting, Saturn shall ensure that the calling, notice, convening and conduct of the Saturn Stockholders' Meeting, and that all proxies solicited by it in connection with the Saturn Stockholders' Meeting, are solicited and done in compliance with Delaware Law, the Saturn Charter Documents, the rules of Nasdaq and all other applicable Legal Requirements.

(c) Subject to the terms of Section 5.4(d): (i) the Nova Board shall unanimously recommend that Nova's stockholders vote in favor of and adopt and approve this Agreement and approve the Merger at the Nova Stockholders' Meeting; (ii) the Prospectus/ Proxy Statement shall include (A) the fairness opinion referred to in Section 2.19 and (B) a statement to the effect that the Nova Board has unanimously recommended that Nova's stockholders vote in favor of and adopt and approve this Agreement at the Nova Stockholders' Meeting; and (iii) neither the Nova Board nor any committee thereof shall withdraw, amend, change or modify, or propose or resolve to withdraw, amend, change or modify in a manner adverse to Saturn, the unanimous recommendation of the Nova Board that Nova's stockholders vote in favor of and adopt and approve this Agreement. For purposes of this Agreement, said recommendation of the Nova Board shall be deemed to have been modified in a manner adverse to Saturn if said recommendation shall no longer be unanimous.

(d) The Saturn Board shall unanimously recommend that Saturn's stockholders vote in favor of the Stock Issuance, the Option Assumption and the Financing at the Saturn Stockholders' Meeting; (ii) the Prospectus/ Proxy Statement shall include (A) the fairness opinion referred to in Section 3.19 and (B) a statement to the effect that the Saturn Board has unanimously recommended that Saturn's stockholders vote in favor of the Stock Issuance, the Option Assumption and the Financing at the Saturn Stockholders' Meeting; and (iii) neither the Saturn Board nor any committee thereof shall withdraw, amend, change or modify, or propose or resolve to withdraw, amend, change or modify in a manner adverse to Nova, the unanimous recommendation of the Saturn Board that Saturn's stockholders vote in favor of the Stock Issuance, the Option Assumption and the Financing. For purposes of this Agreement, said recommendation of the Saturn Board shall be deemed to have been modified in a manner adverse to Nova if said recommendation shall no longer be unanimous.

### 5.3 Confidentiality; Access to Information

(a) The parties acknowledge that Saturn and Nova have previously executed a letter agreement, dated as of April 7, 2005 (the "Confidentiality Agreement"), which Confidentiality Agreement will continue in full force and effect in accordance with its terms.

(b) Nova and Saturn shall afford the other and the other's accountants, counsel, advisors and other representatives reasonable access during normal business hours, upon reasonable notice, to its properties, books, records and personnel during the period prior to the Effective Time to obtain all information concerning the business, including the status of product development efforts, properties, financial positions, results of operations and personnel, as the other may reasonably request.

(c) No information or knowledge obtained by Saturn or Nova in any investigation pursuant to this Section 5.3 will affect or be deemed to modify any representation or warranty contained herein or the conditions to the obligations of the parties to consummate the Transactions.

# EXHIBIT C

## PART 3

Table of Contents5.4 No Solicitation

(a) No Solicitation by Nova. Neither Nova nor any of its Subsidiaries nor any of the executive officers and directors of Nova or its Subsidiaries shall, and Nova shall use its commercially reasonable efforts to cause all other employees and any investment banker, attorney, accountant and other advisor or representative retained by Nova or any of its Subsidiaries (collectively, “**Representatives**”) not to, directly or indirectly: (i) solicit, initiate, seek, knowingly encourage, knowingly facilitate or induce any inquiry with respect to, or the making, submission or announcement of, any Acquisition Proposal (as defined in Section 5.4(k)(i)) with respect to Nova or any Subsidiary, (ii) participate in any discussions or negotiations regarding, or furnish to any person any nonpublic information with respect to, or take any other action to facilitate any inquiries or the making of any proposal that constitutes or may reasonably be expected to lead to, any Acquisition Proposal with respect to Nova or any Subsidiary, (iii) engage in discussions with any person with respect to any Acquisition Proposal with respect to Nova or any Subsidiary, except as to the existence of these provisions, (iv) approve, endorse or recommend any Acquisition Proposal with respect to Nova or any Subsidiary (except to the extent specifically permitted pursuant to Section 5.4(d)), or (v) enter into any letter of intent or similar document or any contract, agreement or commitment contemplating or otherwise relating to any Acquisition Proposal or transaction contemplated thereby with respect to Nova or any Subsidiary. Nova and its Subsidiaries will immediately cease any and all existing activities, discussions or negotiations with any third parties conducted heretofore with respect to any Acquisition Proposal

(b) Notification by Nova of Unsolicited Acquisition Proposals

(i) As promptly as practicable (but in no event more than 48 hours) after receipt of any Acquisition Proposal or any request for nonpublic information or inquiry which it reasonably believes would lead to an Acquisition Proposal, Nova shall provide to Saturn oral and written notice of the material terms and conditions of such Acquisition Proposal, request or inquiry, and the identity of the person or group making any such Acquisition Proposal, request or inquiry and a copy of all written materials provided in connection with such Acquisition Proposal, request or inquiry. Nova shall provide to Saturn as promptly as practicable (but in no event more than 48 hours thereafter) oral and written notice setting forth all such information as is reasonably necessary to keep Saturn informed in all material respects of the status and details (including material amendments or proposed material amendments) of any such Acquisition Proposal, request or inquiry and shall promptly provide to Saturn a copy of all written materials subsequently provided in connection with such Acquisition Proposal, request or inquiry

(ii) Nova shall provide Saturn with 48 hours prior notice (or such lesser prior notice as is provided to the members of the Nova Board) of any meeting at which the Nova Board is reasonably expected to consider any Acquisition Proposal.

(c) Superior Offers for Nova. Notwithstanding anything to the contrary contained in Section 5.4(a), in the event that Nova or any Subsidiary receives an unsolicited, bona fide written Acquisition Proposal from a third party that the Nova Board has in good faith concluded (following the receipt of the advice of its financial advisor), is, or could reasonably likely result in, a Superior Offer (as defined in Section 5.4(k)(iii)), it may then take the following actions (but only if and to the extent that the Nova Board concludes in good faith, following the receipt of advice of its outside legal counsel, that such action is required in order for the Nova Board to comply with its fiduciary duties to Nova’s stockholders under applicable law):

(i) Furnish nonpublic information to the third party making such Acquisition Proposal, *provided* that (A) (1) concurrently with furnishing any such nonpublic information to such party, it gives Saturn written notice of its intention to furnish nonpublic information and (2) it receives from the third party an executed confidentiality agreement containing customary limitations on the use and disclosure of all nonpublic written and oral information furnished to such third party on its behalf, the terms of which are at least as restrictive as the terms contained in the Confidentiality Agreement and (B) contemporaneously with furnishing any such nonpublic information to such third party, Nova

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furnishes such nonpublic information to Saturn (to the extent such nonpublic information has not been previously so furnished); and

(ii) Engage in discussions or negotiations with the third party with respect to the Acquisition Proposal, *provided* that concurrently with entering into negotiations with such third party, Nova gives Saturn written notice of its intention to enter into negotiations with such third party.

(d) *Changes of Recommendation of Nova Board* In response to the receipt of a Superior Offer, the Nova Board may withhold, withdraw, amend or modify its unanimous recommendation in favor of the Merger, and, in the case of a Superior Offer that is a tender or exchange offer made directly to its stockholders, may recommend that its stockholders accept the tender or exchange offer (any of the foregoing actions, whether by the Nova Board or a committee thereof, a “**Change of Recommendation**”), if all of the following conditions in clauses (i) through (v) are met:

(i) A Superior Offer with respect to Nova has been made and has not been withdrawn;

(ii) The Nova Stockholders’ Meeting has not occurred;

(iii) Nova shall have (A) provided to Saturn at least five (5) days’ written notice which shall state expressly (1) that Nova has received a Superior Offer, (2) the material terms and conditions of the Superior Offer and the identity of the person or group making the Superior Offer, and (3) that the Nova Board intends to effect a Change of Recommendation and the manner in which it intends to do so, (B) provided to Saturn a copy of all written materials delivered to the person or group making the Superior Offer in connection with such Superior Offer, and (C) made available to Saturn all materials and information made available to the person or group making the Superior Offer in connection with such Superior Offer (to the extent such material and information has not been previously so furnished);

(iv) The Nova Board has concluded in good faith, after receipt of advice of its outside legal counsel, that, in light of such Superior Offer, the Change of Recommendation is required in order for the Nova Board to comply with its fiduciary duties to Nova’s stockholders under applicable law; and

(v) It shall not have breached any of the provisions set forth in this Section 5.4.

During the five (5) day period set forth in clause (iii) above, the Nova Board shall provide Saturn the opportunity to make, and shall give due consideration to, adjustments to the terms and conditions of this Agreement or the transactions contemplated hereby, and alternative proposals in connection therewith.

(e) *Continuing Obligation to Call, Hold and Convene Stockholders’ Meetings; No Other Vote* Notwithstanding anything to the contrary contained in this Agreement, the obligation of Nova and Saturn to call, give notice of, convene and hold the Nova Stockholders’ Meeting and Saturn Stockholders’ Meeting, respectively, shall not be limited or otherwise affected by the commencement, disclosure, announcement or submission to Nova of any Acquisition Proposal with respect to it, or by any Change of Recommendation. Nova shall not submit to the vote of its stockholders any Acquisition Proposal, or propose to do so.

(f) *Compliance with Tender Offer Rules* Nothing contained in this Agreement shall prohibit the Nova Board from taking and disclosing to its stockholders a position contemplated by Rules 14d-9 and 14e-2(a) or Item 1012(a) of Regulation M-A under the Exchange Act with regard to an Acquisition Proposal; *provided* that Nova shall not effect a Change of Recommendation unless specifically permitted pursuant to the terms of Section 5.4(d).

(g) *No Solicitation by Saturn* Neither Saturn nor any of its Subsidiaries nor any of the executive officers and directors of Saturn or its Subsidiaries shall, and Saturn shall use its commercially reasonable efforts to cause all other employees and its Representatives not to, directly or indirectly: (i) solicit, initiate, seek, encourage, knowingly facilitate or induce any inquiry with respect to, or the making, submission or announcement of, any Saturn Acquisition Proposal (as defined in Section 5.4(k)(ii)) with respect to Saturn or any Subsidiary, (ii) participate in any discussions or negotiations regarding, or furnish to any

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person any nonpublic information with respect to, or take any other action to facilitate any inquiries or the making of any proposal that constitutes or may reasonably be expected to lead to, any Saturn Acquisition Proposal with respect to Saturn or any Subsidiary, (iii) engage in discussions with any person with respect to any Saturn Acquisition Proposal with respect to Saturn or any Subsidiary, except as to the existence of these provisions, or (iv) enter into any letter of intent or similar document or any contract, agreement or commitment contemplating or otherwise relating to any Saturn Acquisition Proposal. Saturn and its Subsidiaries will immediately cease any and all existing activities, discussions or negotiations with any third parties conducted heretofore with respect to any Saturn Acquisition Proposal.

(h) Notification by Saturn of Unsolicited Saturn Acquisition Proposals.

(i) As promptly as practicable (but in no event more than 48 hours) after receipt of any Saturn Acquisition Proposal or any request for nonpublic information or inquiry which it reasonably believes would lead to a Saturn Acquisition Proposal, Saturn shall provide to Nova oral and written notice of the material terms and conditions of such Saturn Acquisition Proposal, request or inquiry, and the identity of the person or group making any such Saturn Acquisition Proposal, request or inquiry and a copy of all written materials provided in connection with such Acquisition Proposal, request or inquiry. Saturn shall provide to Nova as promptly as practicable (but in no event more than 48 hours thereafter) oral and written notice setting forth all such information as is reasonably necessary to keep Nova informed in all material respects of the status and details (including material amendments or proposed material amendments) of any such Saturn Acquisition Proposal, request or inquiry and shall promptly provide to Nova a copy of all written materials subsequently provided in connection with such Saturn Acquisition Proposal, request or inquiry.

(ii) Saturn shall provide Nova with 48 hours prior notice (or such lesser prior notice as is provided to the members of the Saturn Board) of any meeting at which the Saturn Board is reasonably expected to consider any Saturn Acquisition Proposal.

(i) Unsolicited Offers for Saturn. Notwithstanding anything to the contrary contained in Section 5.4(g), in the event that Saturn or any Subsidiary receives an unsolicited, bona fide written Saturn Acquisition Proposal from a third party, it may then take the following actions:

(i) Furnish nonpublic information to the third party making such Saturn Acquisition Proposal, *provided* that concurrently with furnishing any such nonpublic information to such party, Saturn provides Nova written notice of its intention to furnish nonpublic information;

(ii) Engage in negotiations with the third party with respect to the Acquisition Proposal, *provided* that concurrently with entering into negotiations with such third party, Saturn provides Nova written notice of its intention to enter into negotiations with such third party; and

(iii) Enter into any letter of intent or similar document or any contract, agreement or commitment contemplating or otherwise relating to any Saturn Acquisition Proposal; *provided, however*, that Saturn may not enter into any such letter of intent, document, contract, agreement or commitment if the terms of such transaction would be reasonably expected to materially interfere with or materially delay the consummation of the Merger.

(j) Exception to Saturn Non-Solicitation. It is expressly agreed and understood that Saturn may, and may cause its Representatives to, take any action otherwise prohibited by Section 5.4(g) with respect to the matter set forth on Section 5.4(j) of the Saturn Disclosure Letter.

(k) Certain Definitions. For purposes of this Agreement, the following terms shall have the following meanings:

(i) “**Acquisition Proposal**,” shall mean any offer or proposal, relating to any transaction or series of related transactions involving: (A) any purchase or acquisition by any person or “group” (as defined under Section 13(d) of the Exchange Act and the rules and regulations thereunder) of more than a fifteen percent (15%) interest in the total outstanding voting securities of Nova or any of its Subsidiaries or any tender offer or exchange offer that if consummated would result in any person or

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group beneficially owning fifteen percent (15%) or more of the total outstanding voting securities of Nova any of its Subsidiaries, or any merger, consolidation, business combination or similar transaction involving Nova or any of its subsidiaries, (B) any sale, lease (other than in the ordinary course of business), exchange, transfer, exclusive license or other material license outside the ordinary course of business, acquisition or disposition of more than fifteen percent (15%) of the assets of Nova (including its Subsidiaries taken as a whole), or (C) any liquidation or dissolution of Nova;

(ii) "Saturn Acquisition Proposal," shall mean any offer or proposal, relating to any transaction or series of related transactions involving: (A) any purchase or acquisition by any person or "group" (as defined under Section 13(d) of the Exchange Act and the rules and regulations thereunder) of more than a fifty percent (50%) interest in the total outstanding voting securities of Saturn or any of its Subsidiaries or any tender offer or exchange offer that if consummated would result in any person or group beneficially owning fifty percent (50%) or more of the total outstanding voting securities of Saturn any of its Subsidiaries, or any merger, consolidation, business combination or similar transaction involving Saturn or any of its subsidiaries wherein the equity interests held by stockholders of Saturn immediately prior to such transaction would represent less than fifty percent (50%) of the equity interests of the surviving entity immediately after such transaction, (B) any sale, lease (other than in the ordinary course of business), exchange, transfer exclusive license or other material license outside the ordinary course of business, acquisition or disposition of more than fifteen percent (15%) of the assets of Saturn (including its Subsidiaries taken as a whole), or (C) any liquidation or dissolution of Saturn.

(iii) "Superior Offer," shall mean an unsolicited, bona fide written offer made by a third party to acquire, directly or indirectly, pursuant to a tender offer, exchange offer, merger, consolidation or other business combination, all or substantially all of the assets of Nova or a majority of the total outstanding voting securities of Nova and as a result of which the equity interests held by stockholders of Nova immediately preceding such transaction would represent less than fifty percent (50%) of the equity interests in the surviving or resulting entity of such transaction or any direct or indirect parent or Subsidiary thereof, on terms that the Nova Board has in good faith concluded (following the receipt of advice of its outside legal counsel and its financial adviser), taking into account, among other things, all legal, financial, regulatory and other aspects of the offer and the person making the offer, to be more favorable, from a financial point of view, to Nova's stockholders (in their capacities as stockholders) than the terms of the Merger and is reasonably capable of being consummated.

#### 5.5 Public Disclosure.

(a) Saturn and Nova shall consult with each other, and to the extent practicable, agree, before issuing any press release or otherwise making any public statement with respect to the Transactions, this Agreement or, except for as necessary to effect Nova's rights under Section 5.4(d), an Acquisition Proposal or Saturn Acquisition Proposal, and shall not issue any such press release or make any such public statement prior to such consultation and (to the extent practicable) agreement, except as may be required by law or any listing agreement with a national securities exchange or Nasdaq, in which case reasonable efforts to consult with the other party will be made prior to such release or public statement. The parties have agreed to the text of the joint press release announcing the signing of this Agreement

(b) Saturn and Nova shall consult with the other before issuing any press release or otherwise making any public statement with respect to its earnings or results of operations, and shall not issue any such press release or make any such public statement prior to such consultation

#### 5.6 Reasonable Efforts; Notification.

(a) Other than taking any action permitted by Section 5.4(d) and subject to the limitations set forth in Section 5.9, upon the terms and subject to the conditions set forth in this Agreement each of the parties agrees to use all commercially reasonable efforts to take, or cause to be taken, all actions, and to do, or cause to be done, and to assist and cooperate with the other parties in doing, all things necessary, proper

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or advisable to consummate and make effective, in the most expeditious manner practicable, the Merger and the transactions contemplated hereby, including the following: (i) the taking of all reasonable acts necessary to cause the conditions precedent set forth in Article VI to be satisfied, (ii) the obtaining of all necessary actions or nonactions, waivers, consents, approvals, orders and authorizations from Governmental Entities and the making of all necessary registrations, declarations and filings (including registrations, declarations and filings with Governmental Entities, if any) and the taking of all reasonable steps as may be necessary to avoid any suit, claim, action, investigation or proceeding by any Governmental Entity, (iii) the obtaining of all consents, approvals or waivers from third parties required as a result of the transactions contemplated in this Agreement, (iv) the defending of any suits, claims, actions, investigations or proceedings, whether judicial or administrative, challenging this Agreement or the consummation of the transactions contemplated hereby, including seeking to have any stay or temporary restraining order entered by any court or other Governmental Entity vacated or reversed, and (v) the execution or delivery of any additional instruments reasonably necessary to consummate the Merger and the transactions contemplated hereby, and to fully carry out the purposes of, this Agreement. In connection with and without limiting the foregoing, Nova and the Nova Board shall, if any state takeover statute or similar statute or regulation is or becomes applicable to the Merger or this Agreement, use all commercially reasonable efforts to ensure that the Merger may be consummated as promptly as practicable on the terms contemplated by this Agreement and otherwise to minimize the effect of such statute or regulation on the Merger and this Agreement.

(b) Nova shall give prompt notice to Saturn upon becoming aware that any representation or warranty made by it contained in this Agreement has become untrue or inaccurate in any material respect, or of any failure of Nova to comply with or satisfy in any material respect any covenant, condition or agreement to be complied with or satisfied by it under this Agreement, in each case, such that the conditions set forth in Article VI would not be satisfied; *provided, however,* that no such notification shall affect the representations, warranties, covenants or agreements of the parties or the conditions to the obligations of the parties under this Agreement. Nova will notify Saturn of any actions, suits, claims, investigations or proceedings commenced or threatened in writing against, relating to or involving or otherwise affecting such party or any of its Subsidiaries that relate to the consummation of the Merger.

(c) Saturn shall give prompt notice to Nova upon becoming aware that any representation or warranty made by it contained in this Agreement has become untrue or inaccurate in any material respect, or of any failure of Saturn to comply with or satisfy in any material respect any covenant, condition or agreement to be complied with or satisfied by it under this Agreement, in each case, such that the conditions set forth in Article VI would not be satisfied; *provided, however,* that no such notification shall affect the representations, warranties, covenants or agreements of the parties or the conditions to the obligations of the parties under this Agreement. Saturn will notify Nova of any actions, suits, claims, investigations or proceedings commenced or threatened in writing against, relating to or involving or otherwise affecting such party or any of its Subsidiaries that relate to the consummation of the Merger.

#### 5.7 Third Party Consents and Notices

(a) As soon as practicable following the date hereof, Nova shall use its commercially reasonable efforts to obtain any consents, waivers and approvals under any of its or its Subsidiaries' respective Contracts required to be obtained in connection with the consummation of the Transactions, including those set forth on Section 2.3(b) of Nova Disclosure Letter.

(b) As soon as practicable following the date hereof, Nova shall deliver any notices required under any of its or its Subsidiaries' respective Contracts that are required to be provided in connection with the consummation of the Transactions.

(c) Nova shall give all notices and other information required to be given to the Nova Employees, any collective bargaining unit representing any group of Nova Employees, and any applicable government authority under the WARN Act, the National Labor Relations Act, as amended, the Code, COBRA and other applicable law in connection with the transactions contemplated by this Agreement.

Table of Contents5.8 *Indemnification*

(a) From and after the Effective Time, Saturn shall, and shall cause the Final Surviving Entity to, fulfill and honor in all respects the obligations of Nova pursuant to any indemnification agreements between Nova and its directors, officers, employees and agent (the “**Indemnified Parties**”) in effect on the date hereof and listed on Nova Disclosure Letter. The Limited Liability Operating Agreement of the Final Surviving Entity will contain provisions with respect to exculpation and indemnification that are at least as favorable to the Indemnified Parties as those contained in Nova Charter Documents as in effect on the date hereof, which indemnification provisions will not be amended, repealed or otherwise modified for a period of six (6) years from the Effective Time, and such exculpation provisions will not be amended, repealed or otherwise modified at any time after the date hereof, in any manner that would adversely affect the rights thereunder of individuals who, immediately prior to the Effective Time, were employees or agents of Nova, unless such modification is required by applicable law.

(b) At any time prior to the Closing, Nova may purchase, for a price (which shall in no event exceed the Cap Amount regardless of any amounts credited against premium payments previously paid by Nova) not to exceed the amount set forth on Section 5.8(b) of the Nova Disclosure Letter (the “**Cap Amount**”), directors’ and officers’ liability tail coverage (for a period of six (6) years following the Effective Time), covering those persons who are currently covered by Nova’s directors’ and officers’ liability insurance policy, on terms comparable to those applicable to the current directors and officers of Nova, and covering all periods prior to the Effective Time (the “**Tail Coverage**”). Following the Closing, in the event Nova shall not have purchased the Tail Coverage, Saturn shall (or shall cause the Final Surviving Entity to) purchase the Tail Coverage, *provided* that in no event shall Saturn or the Final Surviving Entity be required to expend in the aggregate in connection with the purchase of such Tail Coverage an amount in excess of the Cap Amount and, in the event a comparable level of directors’ and officers’ liability Tail Coverage is not readily available for the Cap Amount, Saturn (or the Final Surviving Entity, as the case may be) shall only be obligated to purchase such Tail Coverage as may be purchased for the Cap Amount.

(c) This Section 5.8 is intended for the irrevocable benefit of, and to grant third party rights to, the Indemnified Parties and shall be binding on all successors and assigns of Saturn, Nova and the Final Surviving Entity. Each of the Indemnified Parties shall be entitled to enforce the covenants contained in this Section 5.8.

5.9 *Regulatory Filings*

(a) Each of Saturn and Nova shall promptly after the execution of this Agreement apply for or otherwise seek, and use all commercially reasonable efforts to obtain, all consents and approvals required to be obtained by it for the consummation of the Merger. Without limiting the generality or effect of the foregoing, each of Saturn and Nova shall, as soon as practicable, make any initial filings required under the HSR Act and as promptly as practicable make any other additional filings required by any other applicable Antitrust Laws (as defined herein). The parties shall consult and cooperate with one another, and consider in good faith the views of one another, in connection with any analyses, appearances, presentations, memoranda, briefs, arguments, opinions and proposals made or submitted by or on behalf of any party hereto in connection with proceedings under or relating to the HSR Act or any foreign or other Antitrust Law; *provided*, that with respect to any such analyses, appearances, presentations, memoranda, briefs, arguments, opinions or proposals, each of Saturn and Nova need not supply the other (or its counsel) with copies (or in case of oral presentations, a summary) to the extent that any law, treaty, rule or regulation of any Governmental Entity applicable to such party requires such party or its subsidiaries to restrict or prohibit access to any such properties or information.

(b) Each party will notify the other promptly upon the receipt of: (i) any comments from any officials of any Governmental Entity in connection with any filings made pursuant hereto, and (ii) any request by any officials of any Governmental Entity for amendments or supplements to any filings made pursuant to, or information provided to comply in all material respects with, any applicable Legal Requirements. Whenever any event occurs that is required to be set forth in an amendment or supplement

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to any filing made pursuant to Section 5.9(a), each party will promptly inform the other of such occurrence and cooperate in filing with the applicable Governmental Entity such amendment or supplement.

(c) Each of Saturn and Nova shall use all commercially reasonable efforts to resolve such objections, if any, as may be asserted by any Governmental Entity with respect to the transactions contemplated by this Agreement under the HSR Act, the Sherman Act, as amended, the Clayton Act, as amended, the Federal Trade Commission Act, as amended, Council Regulation 139/2004 of the European Commission, and any other federal, state or foreign statutes, rules, regulations, orders or decrees that are designed to prohibit, restrict or regulate actions having the purpose or effect of monopolization or restraint of trade (collectively, “**Antitrust Laws**”). Each of Saturn and Nova shall use all commercially reasonable efforts to take such action as may be required to cause the expiration of the notice periods under the HSR Act or other Antitrust Laws with respect to such transactions as promptly as practicable after the execution of this Agreement. If any proceeding is instituted or threatened by any Governmental Entity with appropriate jurisdiction under Antitrust Laws seeking to restrain or impose conditions upon or alter the Merger, Saturn and Nova shall use all commercially reasonable efforts to resolve such proceeding through negotiation or settlement. In addition, Saturn and Nova shall respond diligently to all inquiries for additional information required by law or governmental regulation, including any “second request” for information pursuant to the Antitrust Laws.

(d) Notwithstanding anything in this Agreement to the contrary, if any administrative or judicial action or proceeding is instituted (or threatened to be instituted) challenging any transaction contemplated by this Agreement as violative of any Antitrust Law, it is expressly understood and agreed that Saturn shall not have any obligation to litigate or contest any administrative or judicial action or proceeding or any decree, judgment, injunction or other order, whether temporary, preliminary or permanent.

(e) Notwithstanding the foregoing or any other provision of this Agreement, nothing in this Section 5.9 shall limit a party’s right to terminate the Agreement pursuant to Section 7.1(a) so long as such party has until such date complied with its obligations under this Section 5.9.

#### 5.10 Employee Matters

(a) After the date hereof and prior to the Closing Date, the Chief Executive Officers of Saturn and Nova shall work together to determine the continuing workforce of Saturn and any Subsidiary of Saturn after the Merger (including retention programs for any key employees), and it is contemplated that a significant number of employees of Nova and its Subsidiaries will be offered employment by Saturn and/or one of its Subsidiaries prior to the Closing (the “**Offered Employees**”), with such employment to be effective on the first business day following the Effective Time (the “**Offer**”). Nova will assist Saturn with its efforts to enter into an offer letter with Offered Employees prior to the Closing Date. Such Offers (i) will have terms and conditions determined by Saturn and consistent with standard Saturn employment arrangements and (ii) will supersede any prior employment agreements and other arrangements with such employees in effect prior to the Closing. Notwithstanding the foregoing, Saturn shall assume and agrees to comply with the terms of each of the Nova Employee’s individual retention and severance agreements (the “**Employment Agreements**”), if any, in effect as of the date hereof and as are set forth on Section 5.10 of the Nova Disclosure Letter. Each Offered Employee who delivers an executed Offer to Saturn no later than the date specified in the Offer shall be referred to herein as a “**Continuing Employee**.” Continuing Employees who are terminated involuntarily following the Closing will be eligible to participate in a severance program mutually agreed to by the Chief Executive Officers of Nova and Saturn (it being understood that such program is intended to be at least as beneficial to such employees as those of Nova’s existing program or a new program agreed upon between the Chief Executive Officers of Saturn and Nova that is mid-way between Nova’s severance program and Saturn’s severance program). Continuing Employees shall be eligible to receive benefits consistent with Saturn’s applicable human resource policies and in accordance with the terms of Saturn’s employee benefit plans; *provided, however*, that such benefits shall be no less favorable than the benefits offered to similarly situated Saturn employees. Each Continuing Employee shall receive credit for prior service with Nova for purposes of determining eligibility to

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participate and vesting in Saturn benefit plans, including applicability of minimum waiting periods for participation. Notwithstanding the foregoing, Saturn shall not be required to provide any coverage, benefits, or credit inconsistent with the terms of Saturn benefit plans or under circumstances in which such coverage, benefits or credit would result in a duplication of benefits. Saturn will implement a stock option grant program, in consultation with the Chief Executive Officer of Nova, for the benefit of Continuing Employees to effect retention goals and new hire policies.

(b) Prior to the Closing Date, Nova may amend each Assumed Nova Option to provide that the term of each Assumed Nova Option shall be extended so the holder thereof whose employment is involuntarily terminated without cause by Nova or Saturn may exercise the Assumed Nova Option until the six month anniversary of the termination date of such holder's employment; *provided*, that prior to taking any such action, Nova and its advisors shall consult with Saturn and its advisors regarding the tax and accounting implications of taking such action, and Nova shall not take any such action if, in the reasonable judgment of Nova and Saturn and their respective advisors, such action shall cause material adverse tax consequences to the holders thereof (whether pursuant to Section 409A of the Code or otherwise), or if in the reasonable judgment of Saturn and its advisors after consultation with Nova and its advisors, material adverse accounting or tax consequences to Saturn or any of its Subsidiaries.

5.11 *Termination of Certain Benefit Plans.* Effective no later than the day immediately preceding the Closing Date, Nova and its ERISA Affiliates, as applicable, shall each terminate any and all group severance, separation and salary continuation plans (other than the Employment Agreements), and any and all plans intended to include a Code Section 401(k) arrangement (unless Saturn provides written notice to Nova that such 401(k) plans shall not be terminated) (collectively for purposes of this Section 5.11, "Nova Terminated Employee Plans"). Unless Saturn provides such written notice to Nova, no later than five (5) business days prior to the Closing Date, Nova shall provide Saturn with evidence that such Nova Terminated Employee Plan(s) have been terminated (effective no later than the day immediately preceding the Closing Date) pursuant to resolutions of the Nova Board. The form and substance of such resolutions shall be subject to advance reasonable review and approval of Saturn (which approval shall not be unreasonably withheld or delayed). Nova also shall take such other actions in furtherance of terminating such Nova Employee Plan(s) as Saturn may reasonably require.

5.12 *Form S-8 Filing.* Within one (1) business day after the Closing Date, Saturn shall file with the SEC a registration statement on Form S-8 (or any successor form) covering the shares of Saturn Common Stock issuable upon exercise of Saturn Stock Options resulting from the assumption of Nova Options in accordance with Section 1.6(e) and use commercially reasonable efforts to maintain the effectiveness of such registration statement for so long as such Assumed Nova Option remains outstanding.

5.13 *Spreadsheet.* Nova shall prepare and deliver to Saturn, at or prior to the Closing, a spreadsheet in a form to be supplied by Saturn to Nova, which spreadsheet shall be dated as of the Closing Date and shall set forth, as of the Closing Date and immediately prior to the Effective Time, (i) the names of all holders of Nova Options and Unvested Shares and their respective addresses and where available, taxpayer identification numbers, (ii) the number of shares of Nova Common Stock subject to Nova Options and the number of Unvested Shares held by such persons, (iii) the exercise price per share in effect for each Nova Option immediately prior to the Effective Time, (iv) the vesting status and schedule with respect to each Nova Option and the Unvested Shares held by each holder thereof (including the vesting commencement date and repurchase price payable per share with respect to each such Unvested Share), and (v) the Tax status of each Nova Option under Section 422 of the Code (such spreadsheet is referred to throughout as the "Spreadsheet"). A draft of the Spreadsheet shall be provided by Nova to Saturn not later than two (2) business days prior to the Closing Date; *provided* that Saturn has provided Nova with the form of such Spreadsheet not later than ten business days prior to the Closing Date.

5.14 *Section 16 Matters.* Provided that Nova delivers to Saturn the Section 16 Information (as defined below) in a timely fashion, Saturn and Nova shall take all such steps as may be required (to the extent permitted under applicable law) to cause any disposition of Nova Common Stock (including

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derivative securities with respect to Nova Common Stock) resulting from the transactions contemplated by Article 1 of this Agreement by each Nova Insider to be exempt under Rule 16b-3 promulgated under the Exchange Act. "**Section 16 Information**" shall mean information regarding Nova Insiders, the number of shares of Nova Common Stock held by each such Nova Insider, and the number and description of Nova Options held by each such Nova Insider. "**Nova Insiders**" shall mean those individuals who are subject to the reporting requirement of Section 16(b) of the Exchange Act with respect to Nova.

5.15 *Disqualified Individuals*. Five (5) business days prior to the Closing Date, Nova shall, as and to the extent necessary, deliver to Saturn a schedule which sets forth each person who Nova reasonably believes is, with respect to Nova or any Nova ERISA Affiliate, a "disqualified individual" within the meaning of Section 280G of the Code and the regulations promulgated thereunder, as of the date such schedule is delivered to Saturn.

5.16 *Section 83(b) Elections*. Nova shall use commercially reasonable efforts to cause the delivery to Saturn at or prior to the Closing of a true, correct and complete copy of each election statement under Section 83(b) of the Code filed by each person who acquired Unvested Shares, together with evidence of timely filing of such election statement with the appropriate Internal Revenue Service Center.

5.17 *Board of Directors*. The Saturn Board will take all actions necessary such that effective immediately following the Effective Time, two (2) directors of Nova reasonably acceptable to Saturn shall become members of the Saturn Board (the "**Nova Designated Directors**"), and such directors shall be nominated by the Saturn Board for re-election to the Saturn Board at Saturn's next annual stockholders' meeting following the Closing.

5.18 *Nasdaq Listing*. Prior to the Effective Time, Saturn agrees to use all reasonable efforts to authorize for listing on Nasdaq the shares of Saturn Common Stock issuable in connection with the Merger, subject to official notice of issuance.

5.19 *Nova Affiliates; Restrictive Legend*. Nova will use all commercially reasonable efforts to deliver or cause to be delivered to Saturn, as promptly as practicable on or following the date hereof, from each person who may reasonably be deemed to be an affiliate of Nova for purposes of Rule 145 promulgated under the Securities Act an executed affiliate agreement pursuant to which such affiliate shall agree to be bound by the provision of Rule 145 promulgated under the Securities Act in a form provided by Saturn and reasonably acceptable to Nova. Saturn will give stop transfer instructions to its transfer agent with respect to any Saturn Common Stock received pursuant to the Merger by any stockholder of Nova who may reasonably be deemed to be an affiliate of Nova for purposes of Rule 145 promulgated under the Securities Act and there will be placed on the certificates representing such Saturn Common Stock, or any substitutions therefor, a legend stating in substance that the shares were issued in a transaction to which Rule 145 promulgated under the Securities Act applies and may only be transferred (i) in conformity with Rule 145 or (ii) in accordance with a written opinion of counsel, reasonably acceptable to Saturn, in form and substance that such transfer is exempt from registration under the Securities Act.

5.20 *Treatment as Reorganization*. None of Saturn, Sub I, Sub II or Nova shall, and they shall not permit any of their respective Subsidiaries to, take any action prior to or following the Closing that would reasonably be expected to cause the Merger to fail to qualify as a reorganization with the meaning of Section 368(a) of the Code.

5.21 *Sub Compliance*. Saturn shall cause Sub I and Sub II to comply with all of their respective obligations under or relating to this Agreement. Sub I and Sub II shall not engage in any business which is not in connection with the Merger.

5.22 *Name Change*. Not later than ninety (90) days following the Closing Date, Saturn will change its corporate name to "Nova." Following such name change, Saturn will change its trading symbol to that of Nova or another symbol mutually agreed to by Nova and Saturn.

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5.23 *Auditors' Consent*. Nova shall use all commercially reasonable efforts to cause its independent public accountants to deliver a letter dated not more than five (5) days prior to the date on which the Registration Statement shall become effective and addressed to itself and Saturn and their respective Boards of Directors in form and substance reasonably satisfactory to Saturn and customary in scope and substance for agreed-upon procedures letters delivered by independent public accountants in connection with registration statements and prospectus/proxy statements similar to the Registration Statement and the Prospectus/ Proxy Statement

5.24 *Nova Rights Plan*. Nova shall not redeem the Nova Rights or amend or modify (including by delay of the "Distribution Date" thereunder) or terminate the Nova Rights Agreement prior to the Effective Time unless, and only to the extent that: (i) it is required to do so by order of a court of competent jurisdiction or (ii) the Nova Board has concluded in good faith, after receipt of advice of its outside legal counsel, that, in light of a Superior Offer with respect to it, the failure to effect such amendment, modification or termination is reasonably likely to result in a breach of the Nova Board's fiduciary obligations to its stockholders under applicable law.

ARTICLE VI  
CONDITIONS TO THE MERGER

6.1 *Conditions to Obligations of Each Party to Effect the Merger*. The respective obligations of each party to this Agreement to effect the Merger shall be subject to the satisfaction at or prior to the Closing Date of the following conditions:

(a) *Stockholder Approval*. The matters subject to the Required Nova Stockholder Approval and the Required Saturn Stockholder Approval shall have been approved by the requisite vote necessary under applicable law and the Nasdaq Marketplace Rules

(b) *No Order*. No Governmental Entity of competent jurisdiction shall have enacted, issued, promulgated, enforced or entered any statute, rule, regulation, executive order, decree, injunction or other order (whether temporary, preliminary or permanent) which is in effect and which has the effect of making the Merger, the Stock Issuance or the Financing illegal or otherwise prohibiting consummation of the Merger, the Stock Issuance or the Financing.

(c) *HSR Act*. All applicable waiting periods under the HSR Act and under any applicable material foreign or other Antitrust Laws shall have expired or been terminated in connection with the Merger and the Financing.

(d) *Registration Statement Effective; Prospectus/ Proxy Statement*. The SEC shall have declared the Registration Statement effective. No stop order suspending the effectiveness of the Registration Statement or any part thereof shall have been issued and no proceeding for that purpose, and no similar proceeding in respect of the Prospectus/ Proxy Statement, shall have been initiated or threatened in writing by the SEC.

(e) *No Governmental Restriction*. There shall not be pending, and no Specified Governmental Authority shall have made, authorized or approved any statement or communication (or shall have taken, initiated, authorized or approved any other action) that would reasonably be construed to indicate that a Governmental Entity is likely to commence or is seriously considering the commencement of, any suit, action or proceeding: (i) challenging or seeking to restrain or prohibit the consummation of the Merger, the Stock Issuance or the Financing or any of the other transactions contemplated by this Agreement, the effect of which restraint or prohibition if obtained would cause the condition set forth in Section 6.1(e) to not be satisfied or (ii) seeking to require Saturn or any Subsidiary or affiliate to effect a Divestiture. "Specified Governmental Representative" shall mean any official or representative of any Governmental Entity; *provided, however*, that in the case of the U.S. Federal Trade Commission and the U.S. Department of Justice, Specified Governmental Representative shall not include any official or representative below the level of: (a) with respect to

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the U.S. Federal Trade Commission, Director of the Bureau of Competition; and (b) with respect to the U.S. Department of Justice, Assistant Attorney General for the Antitrust Division. **“Divestiture”** shall mean (1) the sale, license or other disposition or holding separate (through the establishment of a trust or otherwise) of any assets or categories of assets of Saturn or any of its affiliates or Nova, (2) the imposition of any limitation or restriction on the ability of Saturn or any of its affiliates to freely conduct their business or Nova’s business or own such assets, or (3) the holding separate of the interests of the Final Surviving Entity or any limitation or regulation on the ability of Saturn or any of its affiliates to exercise full rights of ownership of the Final Surviving Entity.

(f) **Tax Opinions**. Saturn and Nova shall have received a written opinion from Wilson Sonsini Goodrich & Rosati, Professional Corporation and Fenwick & West LLP, respectively, in form and substance reasonably satisfactory to Saturn and Nova, respectively, to the effect that the Merger will constitute a reorganization within the meaning of Section 368(a) of the Code and such opinions shall not have been withdrawn; *provided, however*, that if the counsel to either Saturn or Nova does not render such opinion, this condition shall nonetheless be deemed to be satisfied with respect to such party if counsel to the other party renders an opinion to such party to the effect that the Merger will constitute a reorganization within the meaning of Section 368(a) of the Code. Nova and Saturn shall deliver to tax counsel, and tax counsel shall be entitled to rely upon, reasonable and customary tax representations in connection with rendering such opinions.

(g) **Nasdaq Listing**. The shares of Saturn Common Stock to be issued pursuant to the Merger and the transactions contemplated hereby shall have been authorized for listing on Nasdaq, subject to official notice of issuance.

6.2 **Additional Conditions to Obligations of Nova**. The obligation of Nova to consummate and effect the Merger shall be subject to the satisfaction at or prior to the Closing Date of each of the following conditions, any of which may be waived, in writing, exclusively by Nova:

(a) **Representations and Warranties**. The representations and warranties of Saturn and the Subs in this Agreement, disregarding all qualifications and exceptions contained therein relating to materiality or Material Adverse Change, shall be true and correct on and as of the date of this Agreement, and shall be true and correct on and as of the Closing Date as though such representations and warranties were made on and as of such date (except for representations and warranties which address matters only as to a specified date, which representations and warranties shall be true and correct with respect to such specified date), except where the failure of such representations or warranties to be true and correct (as of the date of this Agreement and as of the Closing Date) have not resulted in, and would not reasonably be expected to result in, individually or in the aggregate with other such failures to be true and correct, a Material Adverse Change to Saturn. Nova shall have received a certificate to such effect signed on behalf of Saturn by a duly authorized officer of Saturn.

(b) **Agreements and Covenants**. Saturn and the Subs shall have performed or complied in all material respects with all agreements and covenants required by this Agreement to be performed or complied with by them on or prior to the Closing Date, and Nova shall have received a certificate to such effect signed on behalf of Saturn by a duly authorized officer of Saturn.

(c) **Material Adverse Change**. No Material Adverse Change to Saturn and its Subsidiaries shall have occurred since the date of this Agreement and be continuing, and Nova shall have received a certificate to such effect signed on behalf of Saturn by the Chief Executive Officer and the Chief Financial Officer of Saturn.

(d) **Closing of Financing**. The purchase by the Warburg Entities of (a) an aggregate of 14,150,943 shares of Saturn Common Stock for an aggregate purchase price of \$59,999,998.32 and (b) warrants to purchase an aggregate of 3,177,570 shares of Saturn Common shall have been consummated prior to or simultaneously with the Effective Time.

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6.3 Additional Conditions to the Obligations of Saturn and the Subs The obligations of Saturn and the Subs to consummate and effect the Merger shall be subject to the satisfaction at or prior to the Closing Date of each of the following conditions, any of which may be waived, in writing, exclusively by Saturn:

(a) Representations and Warranties. The representations and warranties of Nova in this Agreement, disregarding all qualifications and exceptions contained therein relating to materiality or Material Adverse Change, shall be true and correct on and as of the date of this Agreement, and shall be true and correct on and as of the Closing Date as though such representations and warranties were made on and as of such date (except for representations and warranties which address matters only as to a specified date, which representations and warranties shall be true and correct with respect to such specified date), except where the failure of such representations or warranties to be true and correct (as of the date of this Agreement and as of the Closing Date) have not resulted in, and would not reasonably be expected to result in, individually or in the aggregate with other such failures to be true and correct, a Material Adverse Change to Nova. Saturn shall have received a certificate to such effect signed on behalf of Nova by the Chief Executive Officer and Chief Financial Officer of Nova.

(b) Agreements and Covenants. Nova shall have performed or complied in all material respects with all agreements and covenants required by this Agreement to be performed or complied with by it at or prior to the Closing Date, and Saturn shall have received a certificate to such effect signed on behalf of Nova by the Chief Executive Officer and the Chief Financial Officer of Nova.

(c) Material Adverse Change. No Material Adverse Change to Nova and its Subsidiaries shall have occurred since the date of this Agreement and be continuing, and Saturn shall have received a certificate to such effect signed on behalf of Nova by the Chief Executive Officer and the Chief Financial Officer of Nova.

## ARTICLE VII

## TERMINATION, AMENDMENT AND WAIVER

7.1 Termination This Agreement may be terminated at any time prior to the Effective Time, and the Merger may be abandoned, notwithstanding any requisite approvals by the stockholders of Nova or Saturn:

(a) by mutual written consent duly authorized by the Nova Board and the Saturn Board;

(b) by either Nova or Saturn if the Effective Time shall not have occurred on or before January 9, 2006 (the "End Date") for any reason; *provided, however*, that the right to terminate this Agreement under this Section 7.1(b) shall not be available to any party whose action or failure to act has been a principal cause of or resulted in the failure of the Effective Time to occur on or before such date and such action or failure to act constitutes a breach of this Agreement;

(c) by either Nova or Saturn if a Governmental Entity of competent jurisdiction shall have issued an order, decree or ruling or taken any other action, in any case having the effect of permanently restraining, enjoining or otherwise prohibiting the Merger, Stock Issuance or Financing, which order, decree, ruling or other action is final and nonappealable;

(d) by either Nova or Saturn if the Required Nova Stockholder Approval shall not have been obtained by reason of the failure to obtain the required vote at the Nova Stockholders' Meeting or at any adjournment thereof; *provided, however*, that the right to terminate this Agreement under this Section 7.1(d) shall not be available to Nova where the failure to obtain Required Nova Stockholder Approval shall have been caused by the action or failure to act of Nova and such action or failure to act constitutes a material breach by Nova of this Agreement;

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(e) by either Nova or Saturn if the Required Saturn Stockholder Approval shall not have been obtained by reason of the failure to obtain the required vote at the Saturn Stockholders' Meeting or at any adjournment thereof; *provided, however,* that the right to terminate this Agreement under this Section 7.1(e) shall not be available to Saturn where the failure to obtain the Required Saturn Stockholder Approval shall have been caused by the action or failure to act of Saturn and such action or failure to act constitutes a material breach by Saturn of this Agreement;

(f) by Nova, upon a breach of any representation, warranty, covenant or agreement on the part of Saturn set forth in this Agreement, or if any representation or warranty of Saturn shall have become untrue, in either case such that the conditions set forth in Section 6.2(a) or Section 6.2(b) would not be satisfied as of the time of such breach or as of the time such representation or warranty shall have become untrue, *provided, however,* that if such inaccuracy in Saturn's representations and warranties or breach by Saturn is curable by Saturn through the exercise of its commercially reasonable efforts, then Nova may not terminate this Agreement under this Section 7.1(f) for 30 days after delivery of written notice from Nova to Saturn of such breach, *provided* Saturn commences promptly and continues to exercise commercially reasonable efforts to cure such breach (it being understood that Nova may not terminate this Agreement pursuant to this Section 7.1(f) if it shall have materially breached this Agreement or if such breach by Saturn is cured during such 30-day period);

(g) by Saturn, upon a breach of any representation, warranty, covenant or agreement on the part of Nova set forth in this Agreement, or if any representation or warranty of Nova shall have become untrue, in either case such that the conditions set forth in Section 6.3(a) or Section 6.3(b) would not be satisfied as of the time of such breach or as of the time such representation or warranty shall have become untrue, *provided, however,* that if such inaccuracy in Nova's representations and warranties or breach by Nova is curable by Nova through the exercise of its commercially reasonable efforts, then Saturn may not terminate this Agreement under this Section 7.1(g) for 30 days after delivery of written notice from Saturn to Nova of such breach, *provided* Nova commences promptly and continues to exercise commercially reasonable efforts to cure such breach (it being understood that Saturn may not terminate this Agreement pursuant to this Section 7.1(g) if it shall have materially breached this Agreement or if such breach by Nova is cured during such 30-day period);

(h) by Saturn, upon a material breach by Nova of its obligations under Section 5.4;

(i) by Nova, upon a material breach by Saturn of its obligations under Section 5.4;

(j) by Saturn, if a Material Adverse Change to Nova shall have occurred and be continuing since the date hereof;

(k) by Nova, if a Material Adverse Change to Saturn shall have occurred be continuing since the date hereof;

(l) by Saturn if a Triggering Event (as defined below) shall have occurred. For the purposes of this Agreement, a "Triggering Event" shall be deemed to have occurred if: (i) the Nova Board or any committee thereof shall for any reason have withdrawn or withheld, or shall have amended, changed, qualified or modified in a manner adverse to Saturn the Nova Board's or committee's unanimous recommendation in favor of, the adoption and approval of the Agreement or the Merger or transactions contemplated hereby (it being understood that the taking of a neutral position or no position with respect to an Acquisition Proposal beyond the Acquisition Proposal Assessment Period, as defined below, shall be considered an adverse modification); (ii) Nova shall have failed to include in the Prospectus/ Proxy Statement the unanimous recommendation of the Nova Board that holders of Nova Common Stock vote in favor of and adopt and approve this Agreement; (iii) the Nova Board or any committee thereof shall have approved or recommended any Acquisition Proposal; (iv) Nova shall have entered into any letter of intent or similar document or any Contract accepting any Acquisition Proposal (other than any confidentiality agreement required to be entered into pursuant to Section 5.4(c)(i)(A)(2)); (v) a tender or exchange offer relating to securities of Nova shall have

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been commenced by a person unaffiliated with Saturn and Nova shall not have sent to its securityholders pursuant to Rule 14e-2 promulgated under the Exchange Act, within ten (10) business days (such ten (10) business day period, the “**Acquisition Proposal Assessment Period**”) after such tender or exchange offer is first published sent or given, a statement disclosing that the Nova Board recommends rejection of such tender or exchange offer; or (vi) the Nova Board shall have failed to reaffirm its approval or recommendation of this Agreement as promptly as practicable (but in any event within ten (10) business days) after receipt of a written request to do so from Saturn

**7.2 Notice of Termination; Effect of Termination.** Any termination of this Agreement under and in accordance with Section 7.1 will be effective immediately upon (or, if the termination is pursuant to Section 7.1(f) or Section 7.1(g) and the proviso therein is applicable, 30 days after) the delivery of written notice of the terminating party to the other parties hereto. In the event of the termination of this Agreement as provided in Section 7.1, this Agreement shall be of no further force or effect and there shall be no liability to any party hereunder in connection with the Agreement or the Transactions, except (i) as set forth in Section 5.3(a), this Section 7.2, Section 7.3 and Article VIII, each of which shall survive the termination of this Agreement, and (ii) nothing herein shall relieve any party from liability for any intentional or willful breach of, or any intentional misrepresentation made in this Agreement. No termination of this Agreement shall affect the obligations of the parties contained in the Confidentiality Agreement, all of which obligations shall survive termination of this Agreement in accordance with their terms

**7.3 Fees and Expenses**

(a) **General.** Except as set forth in this Section 7.3, all fees and expenses incurred in connection with this Agreement and the transactions contemplated hereby shall be paid by the party incurring such expenses whether or not the Merger is consummated; *provided, however,* that Nova and Saturn shall share equally (i) all fees and expenses, other than attorneys’ and accountants’ fees and expenses which fees shall be paid for by the party incurring such expense, incurred in relation to the printing and filing (with the SEC) of the Prospectus/ Proxy Statement (including any preliminary materials related thereto) and the Registration Statement (including financial statements and exhibits) and any amendments or supplements thereto and (ii) any filing fees for premerger notification and reports forms under the HSR Act and similar applicable laws of other jurisdictions, in each case pursuant to Section 5.9.

**(b) Special Payments.**

(i) In the event that this Agreement is terminated by Nova or Saturn, as applicable, pursuant to Sections 7.1(b), 7.1(d) or 7.1(l), Nova shall promptly, but in no event later than two (2) business days after the date of such termination, pay (or cause to be paid) Saturn a fee equal to Six Million Six Hundred Thirty Thousand Dollars (\$6,630,000) in immediately available funds (the “**Nova Termination Fee**”); *provided*, that in the case of termination under Section 7.1(b) or 7.1(d): (A) such payment shall be made only if following the date hereof and prior to the termination of this Agreement, there has been public disclosure of an Acquisition Proposal with respect to Nova and (1) within twelve (12) months following the termination of this Agreement an Acquisition (as defined in Section 7.3(b)(v)) of Nova is consummated or (2) within twelve (12) months following the termination of this Agreement Nova enters into an agreement providing for an Acquisition of Nova, and (B) such payment shall be made promptly, but in no event later than two (2) business days after the occurrence of any such event.

(ii) In the event that this Agreement is terminated by Nova or Saturn (A) pursuant to Section 7.1(e), and (B) (i) because the Saturn Board shall for any reason have withdrawn or withheld, or shall have amended, changed, qualified or modified in a manner adverse to Nova the Saturn Board’s unanimous recommendation in favor of the Stock Issuance and the Financing, or (ii) Saturn shall have failed to include in the Prospectus/ Proxy Statement the unanimous recommendation of the Saturn Board that holders of Saturn Common Stock vote in favor of the Stock Issuance and the Financing at the Saturn Stockholders’ Meeting, Saturn shall promptly, but in

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no event later than two (2) business days after the date of such termination, pay (or cause to be paid) Nova a fee equal to Six Million Six Hundred Thirty Thousand Dollars (\$6,630,000) in immediately available funds (the “**Saturn Termination Fee**”); *provided*, that such payment shall be made only if following the date hereof and prior to the termination of this Agreement, the Saturn Board shall have failed to reaffirm its approval or recommendation of the matters subject to the Required Saturn Stockholder Approval as promptly as practicable (but in any event within ten (10) business days) after receipt of a written request to do so from Nova from time to time.

(iii) Each of Saturn and Nova acknowledges that the agreements contained in this Section 7.3(b) are an integral part of the transactions contemplated by this Agreement, and that, without these agreements, the other party hereto would not enter into this Agreement; accordingly, if Nova or Saturn fails to pay in a timely manner the amounts due pursuant to this Section 7.3(b), and, in order to obtain such payment, the other makes a claim that results in a judgment against the party failing to so pay, the failing party shall pay to the other’s reasonable costs and expenses (including reasonable attorneys’ fees and expenses) in connection with such suit, together with interest on the amounts set forth in this Section 7.3(b) at the prime rate of Citibank, N.A. in effect on the date such payment was required to be made. Payment of the fees described in this Section 7.3(b) shall not be in lieu of damages incurred in the event of breach of this Agreement.

(iv) Each of Saturn and Nova acknowledges that (1) the damages that would result from a termination described in Section 7.3(b)(i) and Section 7.3(b)(ii) above are difficult to accurately calculate; and (2) accordingly, the amount fixed as the Nova Termination Fee and the Saturn Termination Fee, as applicable, are reasonable estimates of the actual damages that would result from such a termination described in Section 7.3(b)(i) and Section 7.3(b)(ii) above.

(v) For the purposes of this Section 7.3(b) only, “**Acquisition**,” with respect to a party hereto, shall mean any of the following transactions (other than the transactions contemplated by this Agreement): (i) a merger, consolidation, business combination, recapitalization, liquidation, dissolution or similar transaction involving the party pursuant to which equity interests of the stockholders of the party immediately preceding such transaction would represent less than sixty percent (60%) of the aggregate equity interests in the surviving or resulting entity of such transaction or any direct or indirect parent thereof, (ii) a sale or other disposition by the party of assets representing in excess of forty percent (40%) of the aggregate fair market value of the party’s business immediately prior to such sale, or (iii) the acquisition by any person or group (including by way of a tender offer or an exchange offer or issuance by the party or such person or group), directly or indirectly, of beneficial ownership or a right to acquire beneficial ownership of shares representing in excess of forty percent (40%) of the voting power of the then outstanding shares of capital stock of the party.

**7.4 *Amendment.*** Subject to applicable law, this Agreement may be amended by the parties hereto at any time by execution of an instrument in writing specifying such amendment signed on behalf of each of Saturn and Nova, at any time before or after approval of the matters presented in connection with the Merger by the stockholders of Saturn and Nova; *provided*, after any such approval, no amendment shall be made which by law or in accordance with the rules of any relevant stock exchange requires further approval by such stockholders without actually attaining such further stockholder approval.

**7.5 *Extension; Waiver.*** At any time prior to the Effective Time, any party hereto may, to the extent legally allowed, (i) extend the time for the performance of any of the obligations or other acts of the other parties hereto, (ii) waive any inaccuracies in the representations and warranties made to such party contained herein or in any document delivered pursuant hereto and (iii) waive compliance with any of the agreements or conditions for the benefit of such party contained herein. Any agreement on the part of a party hereto to any such extension or waiver shall be valid only if set forth in an instrument in writing signed on behalf of such party. Delay in exercising any right under this Agreement shall not constitute a waiver of such right. For purposes of this Section 7.5, Saturn, Sub I and Sub II will be deemed to be one party.

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ARTICLE VIII  
GENERAL PROVISIONS

8.1 *Non-Survival of Representations and Warranties.* The representations and warranties of Nova, Saturn, Sub I and Sub II contained in this Agreement and the other agreements, certificates and documents contemplated hereby shall terminate and be of no further force or effect at, and as of, the Effective Time, and only the covenants and agreements in this Agreement and the other agreements, certificates and documents contemplated hereby that by their terms survive the Effective Time shall survive the Effective Time.

8.2 *Notices.* All notices and other communications hereunder shall be in writing and shall be deemed given or made as follows (a) on the date of delivery, if delivered personally or by commercial delivery service, or (b) on the date of confirmation of receipt, if sent via telecopy (receipt confirmed) to the parties at the following addresses or telecopy numbers (or at such other address or telecopy numbers for a party as shall be specified by like notice):

(a) if to Saturn, Sub I or Sub II, to:

ScanSoft, Inc.  
9 Centennial Drive  
Peabody, MA 01960  
Attention: General Counsel  
Telephone No.: (978) 977-2000  
Telecopy No : (978) 977-2412

with a copy to:

Wilson Sonsini Goodrich & Rosati  
Professional Corporation  
650 Page Mill Road  
Palo Alto, California 94304  
Attention: Larry W. Sonsini, Esq.  
Katharine A. Martin, Esq.  
Telephone No : (650) 493-9300  
Telecopy No.: (650) 493-6811

and

Wilson Sonsini Goodrich & Rosati  
Professional Corporation  
12 East 49th Street, 30th Floor  
New York, New York 10017  
Attention: Robert Sanchez, Esq.  
Adam M. Dinow, Esq.  
Telephone No.: (212) 999-5800  
Telecopy No.: (212) 999-5899

(b) if to Nova, to:

Nuance Communications, Inc.  
1350 Willow Road  
Menlo Park, CA 94025  
Attention: Chief Executive Officer, Chief Financial Officer, and General Counsel  
Telephone No : (650) 847-7000  
Telecopy No.: (650) 847-7900

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with a copy to:

Fenwick & West LLP  
 Silicon Valley Center  
 801 California Street  
 Mountain View, California 94041  
 Attention: Gordon K. Davidson, Esq.  
 Mark A. Leahy, Esq.  
 Telephone No.:(650) 988-8500  
 Telecopy No :(650) 938-5200

**8.3 Interpretation; Knowledge.**

(a) When a reference is made in this Agreement to Exhibits, such reference shall be to an Exhibit to this Agreement unless otherwise indicated. When a reference is made in this Agreement to Articles or Sections, such reference shall be to an Article or Section, respectively, of this Agreement unless otherwise indicated. Unless otherwise indicated the words "include," "includes" and "including" when used herein shall be deemed in each case to be followed by the words "without limitation." The table of contents and headings contained in this Agreement are for reference purposes only and shall not affect in any way the meaning or interpretation of this Agreement. When reference is made herein to "the business of" an entity, such reference shall be deemed to include the business of all direct and indirect subsidiaries of such entity. Reference to the subsidiaries of an entity shall be deemed to include all direct and indirect subsidiaries of such entity. Where a reference is made to a law, such reference is to such law, as amended, and all rules and regulations promulgated thereunder, unless the context requires otherwise.

(b) For purposes of this Agreement, the term "**knowledge**" means with respect to a party hereto, with respect to any matter in question, that any of the officers, members of the Disclosure Committee, or the direct reports of the General Counsel of such party has actual knowledge of such matter.

(c) For purposes of this Agreement, the term "**material**" as it relates to any person shall refer to such person and any of such person's Subsidiaries, taken as a whole.

(d) For purposes of this Agreement, the term "**Material Adverse Change**" when used in connection with an entity, means any change, event, violation, inaccuracy, circumstance or effect (any such item, an "**Effect**"), individually or when taken together with all other Effects that have occurred prior to the date of determination of the occurrence of the Material Adverse Change, that (i) is or is reasonably likely to be materially adverse to the business, assets (including intangible assets), capitalization, financial condition or results of operations of such entity taken as a whole with its subsidiaries or (ii) will or is reasonably likely to materially impede the ability of such entity to timely consummate the transactions contemplated by this Agreement in accordance with the terms thereof and applicable legal requirements; *provided, however*, that, for purposes of clause (i) above, in no event shall any of the following be taken into account in determining whether there has been or will be a Material Adverse Change respecting any entity: (A) any Effect directly resulting from compliance with, or the taking of any action required by, the terms and conditions of this Agreement; (B) any Effect directly resulting from the announcement or pendency of the Merger (including any disruption in supplier, distributor or partner relationships, any cancellation of or delays in customer orders, any reduction in sales or any loss of employees directly resulting from the announcement or pendency of the Merger); (C) any change in and of itself in such entity's stock price or trading volume; (D) any Effect that results from changes affecting any of the industries in which such entity operates generally (which changes in each case do not disproportionately affect such entity in any material respect); (E) any Effect that results from changes affecting general United States or worldwide economic or capital market conditions (which changes in each case do not disproportionately affect such entity in any material respect); (F) any Effect resulting from the payment of any amounts due, or the provision of any other benefits, to any officers or employees of such entity under employment contracts, employee benefit plans, severance arrangements or other arrangements in existence as of the date hereof to the extent that such payments or provisions of benefits are reflected on the financial statements of such entity or disclosed in this Agreement or any schedule hereto; (G) any Effect resulting from shareholder

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class action litigation, derivative suits or similar claims or actions, arising from allegations of breach of fiduciary duty or other claims relating to such entity's entering into this Agreement; or (H) the failure in and of itself by such entity to meet any internal projections or forecasts or revenue or earnings predictions

(e) For purposes of this Agreement, the term "**person**" shall mean any individual, corporation (including any non-profit corporation), general partnership, limited partnership, limited liability partnership, joint venture, estate, trust, company (including any limited liability company or joint stock company), firm or other enterprise, association, organization, entity or Governmental Entity.

(f) For purposes of this Agreement, the term "**business day**" shall mean each day that is not a Saturday, Sunday or other day on which Saturn or Nova is closed for business or banking institutions located in Boston, Massachusetts or San Francisco, California are authorized or obligated by law or executive order to close, and the term "**day**" when not immediately preceded by the word "**business**" shall mean a calendar day.

(g) Unless the context of this Agreement otherwise requires: (i) words of any gender include each other gender; (ii) words using the singular or plural number also include the plural or singular number, respectively; and (iii) the terms "**hereof**," "**herein**," "**hereunder**" and derivative or similar words refer to this entire Agreement.

8.4 *Counterparts* This Agreement may be executed in one or more counterparts, all of which shall be considered one and the same agreement and shall become effective when one or more counterparts have been signed by each of the parties and delivered to the other party, it being understood that all parties need not sign the same counterpart.

8.5 *Entire Agreement; Third Party Beneficiaries* This Agreement and the documents and instruments and other agreements among the parties hereto as contemplated by or referred to herein (a) constitute the entire agreement among the parties with respect to the subject matter hereof and supersede all prior agreements and understandings, both written and oral, among the parties with respect to the subject matter hereof, it being understood that the Confidentiality Agreement shall continue in full force and effect and shall survive any termination of this Agreement; and (b) are not intended to confer, and shall not be construed as conferring, upon any other person any rights or remedies hereunder, except as specifically provided in Section 5.8.

8.6 *Severability* In the event that any provision of this Agreement, or the application thereof, becomes or is declared by a court of competent jurisdiction to be illegal, void or unenforceable, the remainder of this Agreement will continue in full force and effect and the application of such provision to other persons or circumstances will be interpreted so as reasonably to effect the intent of the parties hereto. The parties further agree to replace such void or unenforceable provision of this Agreement with a valid and enforceable provision that will achieve, to the extent possible, the economic, business and other purposes of such void or unenforceable provision.

8.7 *Other Remedies; Specific Performance* Except as otherwise provided herein, any and all remedies herein expressly conferred upon a party will be deemed cumulative with and not exclusive of any other remedy conferred hereby, or by law or equity upon such party, and the exercise by a party of any one remedy will not preclude the exercise of any other remedy and nothing in this Agreement shall be deemed a waiver by any party of any right to specific performance or injunctive relief. The parties hereto agree that irreparable damage would occur in the event that any of the provisions of this Agreement were not performed in accordance with their specific terms or were otherwise breached. It is accordingly agreed that the parties shall be entitled to seek an injunction or injunctions to prevent breaches of this Agreement and to enforce specifically the terms and provisions hereof, this being in addition to any other remedy to which they are entitled at law or in equity.

8.8 *Governing Law* This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware, regardless of the laws that might otherwise govern under applicable principles of conflicts of law thereof. The parties hereto hereby irrevocably submit to the exclusive jurisdiction of the courts of the State of Delaware and the Federal courts of the United States of America.

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located within Newcastle County in the State of Delaware solely in respect of the interpretation and enforcement of the provisions of this Agreement and of the documents referred to in this Agreement, and in respect of the transactions contemplated hereby and thereby, and hereby waive, and agree not to assert, as a defense in any action, suit or proceeding for the interpretation or enforcement hereof or thereof, that it is not subject thereto or that such action, suit or proceeding may not be brought or is not maintainable in said courts or that the venue thereof may not be appropriate or that this Agreement or any such document may not be enforced in or by such courts, and the parties hereto irrevocably agree that all claims with respect to such action or proceeding shall be heard and determined in such a Delaware State or Federal court. The parties hereby consent to and grant any such court jurisdiction over the person of such parties and over the subject matter of such dispute and agree that mailing of process or other papers in connection with any such action or proceeding in the manner provided in Section 8.2 or in such other manner as may be permitted by applicable law, shall be valid and sufficient service thereof. With respect to any particular action, suit or proceeding, venue shall lie solely in Newcastle County, Delaware

8.9 Rules of Construction The parties hereto agree that they have been represented by counsel during the negotiation and execution of this Agreement and, therefore, waive the application of any law, regulation, holding or rule of construction providing that ambiguities in an agreement or other document will be construed against the party drafting such agreement or document.

8.10 Assignment No party may assign or delegate, in whole or in part, by operation of law or otherwise, either this Agreement or any of the rights, interests, or obligations hereunder without the prior written approval of the other parties, and any such assignment without such prior written consent shall be null and void. Subject to the preceding sentence, this Agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors and permitted assigns.

8.11 Waiver of Jury Trial EACH OF SATURN, NOVA, SUB I AND SUB II HEREBY IRREVOCABLY WAIVES ALL RIGHT TO TRIAL BY JURY IN ANY ACTION, PROCEEDING OR COUNTERCLAIM (WHETHER BASED ON CONTRACT, TORT OR OTHERWISE) ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE ACTIONS OF SATURN, NOVA, SUB I OR SUB II IN THE NEGOTIATION, ADMINISTRATION, PERFORMANCE AND ENFORCEMENT HEREOF.

*[Remainder of Page Intentionally Left Blank]*

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IN WITNESS WHEREOF, the parties hereto have caused this Agreement and Plan of Merger to be executed by their duly authorized respective officers as of the date first written above

SCANSOFT, INC.

By: /s/ Paul Ricci  
Name: Paul Ricci  
Title: Chairman & CEO

NUANCE COMMUNICATIONS, INC.

By: /s/ Charles W. Berger  
Name: Charles W. Berger  
Title: President & CEO

NOVA ACQUISITION CORPORATION

By: /s/ Paul Ricci  
Name: Paul Ricci  
Title: Chairman & CEO

NOVA ACQUISITION LLC

By: /s/ Paul Ricci  
Name: Paul Ricci  
Title: CEO

*[Signature Page to Agreement and Plan of Merger]*  
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